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1891
L. 291

HINTS TO TEACHERS
IN
NATIONAL SCHOOLS.

SELECTED FROM

Modern Works on Practical Education.

EDITED BY

THE REV. HENRY HOPWOOD,

OF QUEENS' COLLEGE, CAMBRIDGE,
AND INSPECTOR OF NATIONAL SCHOOLS.



LONDON:

JAMES BURNS, 17, PORTMAN STREET,
PORTMAN SQUARE.

1841. . .

TO
THE VEN. H. E. MANNING, M.A.

ARCHDEACON OF CHICHESTER,

ETC. ETC.

REV. AND DEAR SIR,

I am much gratified by the permission you have given me to place this little work under your protection. My object in drawing it up has been to assist in increasing the efficiency of the masters and mistresses of our National Schools, by introducing them to an acquaintance with the general principles of Practical Education, as set forth by writers of experience, and exemplified in the principal central and model schools in the kingdom. Every person engaged in the work of education ought to be possessed with the spirit of improvement. At the same time it is of the first importance to guard against the introduction of great or numerous, of sudden or frequent, changes. "It were good," says our great English philosopher, "that men in their innovations

would follow the example of time itself, which indeed innovateth greatly, but quietly, and by degrees, scarce to be perceived ; for otherwise, whatsoever is new is unlooked for. . . . It is good also not to try experiments in states, except the necessity be urgent, or the utility evident ; and well to beware that it be the reformation that draweth on the change, and not the desire of change that pretendeth the reformation." Indeed, I believe it will be found that our first and greatest improvement will consist, not in the invention of new methods, but in the development of the church system. Until we draw out the profound and copious resources of that SPIRITUAL POLITY, organized in Heaven, which is appointed by Christ for the healing of the nations, we shall be at the mercy of every fond empirical scheme : our plans will possess no unity, to give them meaning ; no root, to give them power. But as I have already written upon this subject, I will on this occasion say no more.

I beg to subscribe myself,

Reverend and dear Sir,

Your faithful Servant,

HENRY HOPWOOD.

Tonbridge Wells, S. Mark's Eve, 1841.

SOME ACCOUNT OF THE BOOKS FROM
WHICH THE FOLLOWING SELECTIONS
HAVE BEEN MADE.

1. PROGRESSIVE EDUCATION. *By Madame Necker de Saussure.* Longmans, 1839. 12s.—This work is more suited, perhaps, to the use of mothers who are persons of superior cultivation, and who have a long period before them for the education of their children, than for the professional instructors of the middle classes or the poor : but intelligent infant school teachers may consult its earlier pages with advantage. A devotional spirit pervades it, but there is sad lack of definite Christian principles. In the chapter on “Birth,” and again, in that on “The dispositions to be cultivated during the first year of infancy,” there is not the slightest reference to Baptism. But education from which the sacraments are excluded is essentially *heathen*.

2. HOME EDUCATION. *By the Author of Natural History of Enthusiasm.* Jackson and Walford, 1838. 7s. 6d.—This unsound and extravagant writer possesses scanty claims to a hearing on this or any other

subject. The first chapter of "Home Education" is devoted to a consideration of the "Points of Comparison between Public and Private Education," in which the author awards the palm to the latter. Among the reasons by which he justifies his award are these : that "young persons educated at home are wholly unprepared to cringe before arrogance and oppression ;" that they "have moreover acquired in seclusion that decisive individuality of temper which impels them on all occasions to search for a reason, satisfactory to themselves, before they bow to the dictates of those who have no right to their submission ;" that "their minds have not been drilled to move in rank and file ; they wear no livery of opinion, and their undefined tastes are as decisively opposed, as are their formal principles, to arrogant usurpations of whatever name." Of persons so educated (understanding Mr. Taylor's words in his own sense of them) we can only say, as Hooker has said with quiet severity, of like plausible self-sufficient people—"The best men otherwise are not always the best in regard of society. Many men there are, than whom nothing is more commendable when they are singled ; and yet in society with others, none less fit to answer the duties which are looked for at their hands. They judge by that rule which they frame to themselves with some show of probability ; and what seemeth in that sort convenient, the same they think themselves bound to practise ; the same by all

means they labour mightily to uphold ; whatsoever any law of man to the contrary hath determined, they weigh it not. Of such persons I am persuaded there are whose betters among men would hardly be found, *if they did not live amongst men, but in some wilderness by themselves.*" But although "Home Education," as a whole, is even of mischievous tendency, it contains some valuable suggestions, especially respecting the use of language. In consequence of the gross evils that have resulted from the slovenly methods of rote-teaching and book-lessons so generally prevalent, until of late years, educationists are continually crying out, "Not words, but things." Whereas the truer formula would be, "Both things and words." The passages selected from "Home Education," together with one from "Progressive Education," contain some important corrective remarks, and useful practical directions on this point.

3. EDUCATION FOR THE PEOPLE. *By Mrs. Hippisley Tuckfield.* Taylor and Walton, 1839. 5s.—This little book contains many excellent cautions against mere mechanical teaching, and undue reliance on *systems* and *methods*, however good in themselves; and may be read with profit by those whose humble fields of labour lie in small, remote, and thinly populated rural districts. It would be much improved by the omission of the strictures on the National Society, the "Infant System," and large schools. On these subjects, the amiable authoress "has been led,"

to use her own words, “somewhat beyond her depth.”

4. ACCOUNT OF THE EDINBURGH SESSIONAL SCHOOL. *By John Wood, Esq.* Oliver and Boyd, 5th Ed. 1840. 5s.—This well-known and established work is one of the most useful manuals for a schoolmaster that we possess ; and I recommend it to the *National* schoolmaster in preference to some others, because, as our selections shew, it explains the principles, and vindicates the use, of that monitorial-system, to which he is accustomed.

5. THE TRAINING-SYSTEM ESTABLISHED IN THE GLASGOW NORMAL SEMINARY. *By David Stow, Esq.* Blackie and Son, 1840.—The style and tone of this book are very unpleasing. There is throughout it too great an anxiety to prove that the “Training System” is peculiar, original, &c. But it affords the best examples of the elliptical method of teaching that have yet been published. This method is apparently very simple ; but unless the teacher have been carefully trained in the use of it, and possess likewise considerable natural ability, there is perhaps no method so likely to degenerate into a busy trifling. To the “Hints” respecting the manner of using it may be added the following :—

“No trainer must expect to succeed in his wishes at his first or second attempt ; but we can assure him that each successive week or month will find him better and better able to develop and train the

children upon the simple and natural plan laid down. No unnatural restraint is placed upon any. Every one is left to exercise the children according to his own peculiar cast of mind, as to the kind of questions he may propose, the ellipses he may form, or the illustrations he may present. Let certain points of a picture be first drawn ; secondly, analyzed ; after which let the lesson be deduced.

“ The following are cardinal points to be attended to :—

“ Let every lesson be given, or rather, we should say, exercise the minds of the children, not by simple question and answer, nor by pure ellipsis, *but by question and ellipsis mixed*—sometimes a question and sometimes an ellipsis, or one or more of each, just as the subject admits ; keeping in view the age and attainments of the children. The younger the children are, the more frequently must an ellipsis be formed. A question sets the mind a-thinking or astir—the ellipsis draws out what has been set a-moving, The union of the two, along with analogy and illustration, form *Intellectual Training*. If you commence at the fifth or sixth, instead of the first step—if you attempt to build without first ascertaining the proper base—without, in the first instance, ascertaining the amount, or rather the highest point of the children’s attainments in knowledge, from which you may start—which you can easily do by putting one or two questions—you will assuredly fail. The child must

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6. PRACTICAL REMARKS ON INFANT EDUCATION.
By Rev. Dr. Mayo and Miss Mayo. Seeley, 1838.
2s. 6d.—The whole of this Essay is most excellent, and, together with “*Model Lessons for Infant Schools*” (3s.), ought to be carefully and repeatedly studied by all who are engaged in the education of young children. Among the following selections I have introduced one from Mrs. Tuckfield’s book, on the “*Excitement of Feeling in Infant Schools.*” While these pages have been passing through the press, I have had the opportunity of paying two visits to the Model Infant School, in Gray’s Inn Road, London; and among many other circumstances which gave me great pleasure, I was particularly struck with the entire absence of that false excitement of which Mrs. Tuckfield complains. The children and teachers seemed to be living in an atmosphere of tranquil happiness. Everything was simple and natural. The stamp of regulated activity and quiet intelligence was impressed upon all. In a paper which is placed in the hands of visitors to the Institution, the Committee observe, that “as they are anxious to return to the original and true aim of Infant education, they deprecate all display of precocious abilities or unusual information; and they

hope that visitors will be satisfied with the general air of intelligence and the union of childlike freedom with good order, which prevail in the schools, and not expect anything unusually attractive in the lessons, or in the arrangements and apparatus. In the education given to the children, the chief objects proposed are, to produce religious impressions, to form moral habits, to awaken and direct the mental powers first developed, and to strengthen the bodily frame."

7. WHAT DE FELLEBERG HAS DONE FOR EDUCATION. Saunders and Ottley, 1839.—Europe owes a deep debt of gratitude to De Fellenberg, for his persevering and successful labours at Hofwyl and Meyerkirch. In this country, industrial schools are but little known. The principal are those at Norwood, Limehouse, Hackney Wick, Ealing, &c. The *principle* of industrial schools is the secular development of that upon which the monastic institutions of the olden time rested. The tendency of the most successful of recent educational improvements would seem to be to explode modern ways of charity, and to prove the necessity of restoring certain neglected portions of the church system.

8. REPORTS OF THE TRAINING OF PAUPER CHILDREN. 1841.—The "Report on the Norwood School of Industry," by Dr. Kay, and the Letter of Dr. Kay and Mr. Tufnell "On the Training School at Battersea," are exceedingly interesting and instructive.

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1. *Of the Habit of Obedience.*

IN order to favour both the work of reason and the cultivation of the best motives, education ought to begin by endeavouring to strengthen the character,—by preparing the soil in such a manner that every good principle may take root in it, and bring forth fruit. The natural volatility of children renders this somewhat difficult ; and since, as long as there is no fixed principle in the mind, we are never certain of being able to influence them, the means of cultivating firmness of purpose seem wanting, as well as the quality itself. Yet we must not despair. If we do not possess motives founded on reason, we have a resource, less elevated in its nature, but often very efficacious, in the power of *habits*. Energy is sometimes a gift from Heaven ; but it is also the result of the natural development of the moral strength, provided that there has been no obstacle to its pro-



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In short, the great problem to be solved, in the government of children, is the same which occurs in all governments ; the object always being to combine the greatest degree of individual liberty with a perfect obedience to the laws.

In order to obtain this end, nothing is so much to be avoided as commands half insisted on, obligations half enforced, insinuations, hints, silent solicitations ; by such a plan, while pretending to leave the child to himself, we are really binding him with a thousand ties. He lives in an atmosphere of doubt which enfeebles his energy, and weakens the strength of his intentions. If the boundaries of freedom and duty are destroyed, a vague uncertainty is spread over both his plans and his actions ; he is for ever regretting a resolution which he has not taken, and wishing to retrace his steps. If we would preserve the child now, and the man hereafter, from so painful a state, we must take care that on his entrance into life he is subjected to a just authority, while, at the same time, his will is allowed to act a definite part. Hence it is that public education, where the whole community is governed by fixed laws, and no con-

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3. *Of early Religious Instruction.*

In the religious education of our children two distinct objects must be kept in view; one to inspire

them with devotional feeling, the other to enable them to defend this feeling against those who would destroy it by denying the existence of the Being who is its object. Our aim must, no doubt, be to attain both these objects ; but it is not necessary to attempt to reach both at the same time : and by waiting for the most favourable moment of accomplishing the latter, we may have lost the opportunity of securing the former. We have no incredulity to deal with in children. It is useless to overwhelm them prematurely with arguments ; this would only be giving them false knowledge ; that is to say, knowledge which though true in itself, is not so as it regards them, because they are not capable of appreciating the correctness of the principles on which it is founded. And this will continue to be the case long after the most favourable time for influencing the feelings has passed away.

It must be owned that we are here opposed by a difficulty which disturbs the systematic order of our plan of education. When we wish to establish certain truths, we should naturally begin by laying down principles, and then explaining the inferences which may be deduced from them ; and when we wish to communicate certain feelings, we should attempt to give our children an exact idea of the object for whom these feelings are to be excited, in order that they may learn not to bestow their affections without reason. We may, perhaps, imagine

that if we had assisted at the creation of moral beings, we should have managed things differently ; the reasoning powers should have been the first developed, and no feelings should have been cultivated without their sanction. But Heaven has not so arranged matters. Children love before they can form a judgment ; the order in which their faculties unfold themselves is not according to the rules of logic, any more than the manner in which ideas enter into their head ; nor are these ideas connected together by them in the same way that we should connect them. This is troublesome, no doubt ; but what must we do ? Shall we allow the fairest gifts of Heaven to fade away from a blind attachment to our own ideas of order ? In everything that regards the feelings, we are too apt to fall into this error. But we might as well ask whether religion is necessary to men, as whether it is so to children.

I would go farther and say, that so far from its being necessary to wait for the age of reason in order to inspire a child with feelings of piety, I should not, even when he has attained that age, attempt to begin with argumentative reasoning. Only let the fundamental truths of religion be brought forward as facts, and mentioned with simplicity and reverence, and they may safely be left to their own power, and will not fail of producing conviction. But if these important subjects are introduced by discussions, proofs, refutations of supposed objections,

we give at first an unhappy direction to the thoughts ; a direction but too frequently occurring, not easily changed, and which tends to hinder the development of true religious feeling, and to make that an exercise of the understanding which ought to be the devotion of the heart.—MADAME N. DE SAUSSURE.

4. *Of Disputatious Religious Teaching.*

I have before stated how much I disapprove of teaching religion by means of proofs or arguments. They should be avoided were it only on this account, that any feeling of religion already existing will be injured by them, and that if not yet in existence, its formation will be retarded. But there is still another reason for not employing them. A proof necessarily implies a doubt ; and has often the power of raising one, without being able to dispel it. Were the truth we seek to establish self-evident, we should not take the trouble to prove it : in order therefore to shew the necessity of the proof, the opposite opinion must be placed in a strong light. Hence arises a double task. We must state the error in order to refute it ; and we must explain the truth in order to impress it on the mind. But the former is, to say the least, a useless task, and often leaves behind but too strong an impression. For example, if, when we wish to prove the existence of God, we say that the beautiful order which reigns in the universe could not be the work of *chance*, we bestow a sort of reality and

consistency on the imaginary being whom we so designate. We are obliged to make it something, in order to prove that it is nothing ; but, as we have before remarked, the imagination of children is of such a nature, that it is much easier to raise a phantom in their minds than to lay it again.

When we wish to communicate knowledge of other kinds to children, how do we begin ? We do not wait for them to understand the demonstration of the proposition, before we tell them that the earth is round ; nor do we enter into any discussion as to the validity of historical testimony, before we place in their hands, as a true narrative, the history of past ages : we simply declare facts as such ; any inquiry into their accuracy is deferred to a later period. Why should we pursue a different plan with respect to religious instruction ? In appearing to submit to the examination of children questions above their comprehension, we deceive them as to the extent of their faculties ; and by leading them to decide without sufficient knowledge, we mislead their judgment much more than by merely declaring to them our own conviction of the fact. After all that we can say or do, they will still only believe because we do. However we may pretend to enlighten their faith, it will remain the same,—nothing but an implicit reliance on us, and on our opinions. As it is then only by our persuasion that they are influenced, why make use of a host of arguments, *the strength of which they are unable to*

appreciate? Why not content ourselves with simply declaring to them such truths as are admitted by the most sublime philosophy?—MME. N. DE SAUSSURE.

5. Of the Insufficiency of mere Instruction.

If the instructor be himself strongly impressed with the importance of religious principles, he sees everything in a right point of view. A soul of heavenly origin is to be trained ; and to develop its immortal faculties, and prepare it to return to the bosom of its God, adorned with those gifts, the seeds of which were sown by Him, is the end which he proposes to himself. In this respect, the views of the wise and the religious coincide. But those of mere superficial observers are widely different. Little concerned about either the soul or its faculties, they are entirely occupied in the communication of mere learning, and neglect the cultivation of the intellectual powers. Children, they say, are ignorant, and therefore must be taught; they must acquire the most necessary information. This important, and indeed indispensable object, though it ought, at the same time, to be subordinate to a still higher, is the only one which engages their attention. And as the faculties may be cultivated in some degree by the mere communication of knowledge, it seems to them that, in employing the most efficacious means for enlightening the ignorance of *children*, they have done all that is necessary.

Such is the course generally pursued; and it is the more natural, because mankind in general keep a pretty exact account of the extent of their acquirements, whilst they have little or no idea of that of their intellectual powers. They propose to procure for their children what they feel they are deficient in themselves; and hence a greater or less degree of instruction becomes with them the measure of a more or less careful education; and teaching each individual what he ought to know, appears to them to be the cultivation of the intellect.

This view of the subject is, however, only so far false as it is much too exclusive. It is true enough that every fresh acquirement of knowledge must add to the cultivation of the faculties; but it is equally true, that our being more occupied in merely storing the mind with information, than in the full development of all its powers, is the cause of the greater part of the defects of instruction.

We see, then, that the exclusive importance attached to the mere acquisition of knowledge forms one of the dangerous snares of education. We are enticed by it to choose expeditious methods, and to avoid difficulties. The child appears to make a certain progress; he knows the things which you have taught him; he performs what you have shewed him how to perform; but try him in a different direction, require from him some new exercise of his faculties, and he is quite at a loss. And even when arrived at manhood, this may continue to be

the case, almost without our being aware of it. By the help of memory and imitation, we often see people make their way tolerably well. The degree of civilization at which we are arrived has created a form for almost everything; a mechanical education extends its influence over the whole course of life; and hence it is that the number of insignificant beings is so great; beings who increase numerical amount without adding to value—examples of that useless species, the common-place characters of their age and country.—MADAME N. DE SAUSSURE.

6. *Of Teaching the Natural Sciences.*

One great advantage which children derive from the study of the natural sciences is, that it teaches them to arrive with certainty at the truth; and were it only on this account, these studies would be invaluable. As everything in them depends on facts—on real and sensible objects—children perceive at once the connexion of cause and effect: they gain a habit of searching thoroughly into a subject; and are not contented, as is too frequently the case in the study of abstract ideas, with mere words. In what, then, consists the danger of these studies? There would be none at all, if they obtained only their proper share in the division of the different parts of instruction. No harm can possibly arise to the pupil from the observation of the visible world in which he is placed, so long as he is not *allowed* to forget that there is also an invisible

world; but if his attention be so much engrossed by the idea of a terrestrial order of things, that all feelings of a higher nature are lost, a deplorable habit of mind will be induced. The uniform action of physical forces will become in his eyes only the result of mechanism; and because human reason has discovered some of the laws by which the universe is governed, he may be tempted to deify her, instead of that Being who has conceived and imposed these laws.

But this danger may be easily avoided. If there be an earnest and continual anxiety to inspire religious feelings, a knowledge of the natural sciences will not be productive of any hurtful tendency. If all the moral faculties be equally developed, and each be allowed to have its free exercise, it will never be imagined that religion can have any interest in placing shackles on the reason, and thus depriving it of its natural powers. This faculty is governed by laws; its progress is regulated by Him who bestowed it on us in order to enlighten our path on earth. Urged forward from one consequence to another, it must arrive at a point unknown to us; and hence have arisen all the discoveries of science. When nothing intervenes to disturb this progress, it arrives at truths which must necessarily accord with divine truth.*—MADAME N. DE SAUSSURE.

* There should, in my opinion, be such perfect impartiality in our explanations of facts and their consequences, that in

7. Of Methods of Teaching.

The various modes of teaching—far more numerous than the subjects to be taught—are in a continual state of progressive improvement. No fixed rules are yet laid down respecting them, but every thing seems to be undergoing the test of experience. We shall therefore confine ourselves at present to a few general observations.

In order to entitle any particular method of teaching to a claim on our approbation, we require that it should insure to the pupil the greatest progress, both in theory and practice, in the shortest time. Like every other good instrument, it must work well and quickly. This should be the object of all teaching for every age ; but there is also another object which, though not so prominent, should never be overlooked—the means employed

bringing them forward I would not seem to be constantly pleading the cause of the Divine goodness and wisdom: I would not only reject every proof which will not bear the most severe scrutiny—such as may, perhaps, be confuted by the future discoveries of science,—but I would very sparingly make use even of strong arguments. For a spirit of theological disputation tends as much to deaden the spirit of our studies, as a devotional one does to vivify them. Every additional demonstration of evidence only hurts the understanding which is already convinced, and may even wound the heart which is full of love towards its Creator. Make God present in the soul, and display his works ; they will speak more forcibly than you can.

ought to favour as much as possible the development of all the faculties.

In our estimation of the value of any method, *time* should always form a very important element. It is not enough that progress is made—the pupil must himself be aware that he is advancing. As the time which can be bestowed on any particular study must always be limited, it is of great consequence that the merit of every method in this respect should be sufficiently ascertained to enable us to judge of the probability of a pupil of moderate abilities reaping benefit from it. It would also be very desirable that an account should be taken of the amount of time bestowed on each branch of instruction. If, in any method of teaching, the time taken up in preparatory exercises would, if the pupil were to change his course of study, be entirely lost, that method is more or less faulty. Every moment is important in education, and ought to produce its own peculiar fruit.

By requiring a certain degree of progress both in the theory and practice of any study, we insure the development of the faculties. If the pupil be only required to understand what is explained to him, the faculty of investigation remains dormant, and his mind may be unexercised, even while his attention is on the full stretch. In order to excite him to real activity, some subject of inquiry must be proposed to him. The truth of this is now almost

universally acknowledged ; and the application of it has been the subject of many experiments in education. From the time when Pestalozzi gave the first impulse to the analytical mode of teaching, it has been everywhere tried. Desirous of making the pupil discover for himself the principles of every science, the master places the facts before him ; and, as if ignorant himself of their bearing upon each other, asks him to compare and judge of them. If he make no observations, or only trifling ones, he is insensibly led into the right track by means of questions, till at length some lucky idea flashes upon him, and at once discovers to him the principle of which he has been in search. But as, during this process, the pupil has neither any idea of the conclusion at which he is expected to arrive, nor any distinct object in view, he is scarcely treated like a rational being, although the honour of the discovery may be flatteringly attributed to him. He does not understand why some of his remarks are praised and others rejected ; and as he does not believe in the supposed ignorance of his master, (and indeed ought not to do so, if his respect for him is to be maintained,) he wonders why he is required to search so long for what it would have been more natural to have told him at once.

It must be confessed that the respective parts of master and scholar seem better preserved by the contrary method, in which we begin by laying down

the principle to be established. Then, he who knows speaks, and he who is ignorant listens—asking such explanations as may be necessary. Having nothing to do with a confused mass of facts, which he is required to distinguish and separate even before he understands them, the memory of the pupil is not prematurely loaded; and, enlightened by the order which governs his progress, he sees clearly the road before him. Yet we may here be deceived by appearances. Principles and their consequences are received by the pupil on the authority of the master; but representing as they do nothing tangible or real, we cannot be always sure that he attaches any meaning to them. His discernment may hereafter be put to the test by his application of them; but even if it prove correct, and his judgment be thus exercised, his inventive faculties lie idle.

For the purpose of keeping the mind really active, we must admit the superiority of the method of teaching by investigation. And we may be further encouraged to make use of it, by observing that children, in fact, follow the same plan, though, of course, without being aware of it, both in the involuntary and in the mechanical acquisition of knowledge. In learning to speak, for instance, having possessed themselves of some words, they are by these assisted in acquiring others; and thus proceeding from the known to the unknown, they arrive at last at the full understanding of all. It would

seem, then, that by leading our pupils to discover the relation of facts to each other, and to give an account of their discoveries, we render the path of knowledge easier to them. Advancing thus from one fact to another, they reach at length the principle; and, in attaining it, have followed a more logical method than if this principle had been explained to them in the first instance. It may, however, be doubted whether this logical order is universally applicable. In my opinion, a combination of both methods would afford in many respects the greatest advantage.

The principal defect of the explanatory mode of teaching is, that the road is so smooth and so well tracked that both master and pupil are apt to fall asleep in travelling over it; and, on the other hand, the too exclusive employment of the interrogatory system might, perhaps, render the pupil incapable of profiting by any other method, and impatient or inattentive to the teaching of his future instructors. This is a fault to which all children of lively dispositions are liable, and one which often prevents their receiving such information as is necessary for their instruction—mentally occupied with conjecturing what is going to be explained to them, this premature investigation produces the effect of distraction. Besides, the power of following attentively the progress of an explanation is in itself a valuable quality, and closely associated with habits of defer-

ence and modesty. Why should not a variety of modes of teaching be employed? How much soever we may value unity of design and execution in this subject, it surely is not worth so much as the acquisition of an additional good disposition, moral or intellectual.

On an attentive examination of this subject, we shall find that the different conditions required by each particular method will mutually modify each other, and that no single advantage must be estimated apart from the rest. Thus, even that most important advantage, the active exercise of the mental powers might, if allowed to predominate too exclusively, lead to subtleties, tiresome in themselves, generally useless as regards the study to which they are applied, and leading to a wearisome prolixity; while, on the other hand, if we neglect the great object of developing the intellect, a desire to economize the time of our pupil might lead us into the error of a mere mechanical education. But let us only secure this one essential point—the cultivation of all the intellectual powers—and every method, even that of mere routine, may be safely employed.—MADAME N. DE SAUSSURE.

8. *Of blending Amusement with Instruction.*

It was formerly too much the custom in every system of education to consider only the future man ;

and the consequence was, that the child was nothing but a pupil overwhelmed with studies, and treated with harshness ; and unless nature, owing to the fortunate negligence of instructors, regained her rights by stealth, the strength of the young plant was prematurely exhausted, and it became weak and unhealthy.

Rousseau, however, effected a beneficial change in this respect, and procured for children the restitution of their rights. But his admirers ran into the opposite extreme. Following, or imagining they followed, the plan laid down in *Emile*, they entirely neglected the formation of the character ; their pupils became indeed men ; but rude, ungovernable, and totally unfit to live with their fellow-men.

The disadvantages of this plan were so great and so apparent, that a remedy was necessarily sought for ; and as the old road had already been condemned, some middle path was to be struck out. By retaining the principle of governing children only by the laws of their own free will and pleasure, yet at the same time taking care to bestow upon them, unknown to themselves, those rudiments of instruction which were found to be indispensable, it was imagined that a happy method had been devised of reconciling the two systems. Hence arose a multitude of little inventions and stratagems for communicating knowledge to children under the disguise of amusement. But, besides the deficiency of this system in

many other respects, it was wanting in what is absolutely essential to the success of every plan—*truth*.

By pretending to have an end in view which is not our real object, we lose both the respect and love of children. Suppose, for instance, a mother wishes to commence the instruction of her child by teaching him to read ; how does she set about the task ? Having made her preparatory arrangements, she tells him that she has got a new and amusing game to shew him. Coloured ivory counters, pictures of animals, or flowers on cards, smart gay-looking books, are produced to captivate his imagination. For a time he is completely the dupe of all this artifice ; and, as long as the attraction of novelty remains, comes with eagerness to his lesson. But in a little while he finds it more entertaining to vary the sounds of the different letters, and when A is pointed out to him, will call it O ; or he will amuse himself with performing some feat of agility between the naming of each letter, or will choose rather to build houses with the cards than put them to their proper use. His mother, wishing to preserve the idea of amusement, and yet at the same time to accomplish the end she has in view, endeavours, with an ill-assumed gaiety, to recal his wandering attention ; but he sees through her purpose, and while taking care to frustrate it, derives entertainment from her vexation ; and a disposition most deplorable in itself, but the inevitable consequence of such a system of

deception, is thus fostered. Declare openly your intention of teaching, and the child soon submits ;—his respect for you is even augmented ; but if you try to deceive him with a false pretext, he will cling to your pretended object with determined obstinacy, and will oblige you to preserve your consistency by making that really an amusement which you announced as such.

These remarks will equally apply to the various instructive games which have been invented for children of every age with the intention of lessening the difficulties of learning. As I have before asserted, the most essential point is, in the first place, to inspire children with such tastes as will lead them to derive pleasure from their studies ; and, in the next, to give them that command over themselves which will render them capable of application even to subjects in which their taste is not interested. But by having recourse to games for instruction, both these objects are lost. The interest of the child is engrossed, not by the subject on which it is intended that he should be instructed, but by his hopes and fears as to the result of the game ; and the volatile gaiety inspired by this amusement is far from being a desirable state of mind for receiving instruction. But as it is our wish to accustom children to fix their attention even on objects not likely at first to interest them, and to give them a habit of rational and serious application, we should, instead of sparing

them every difficulty, require from them a degree of effort proportionate to their strength. In this case, the means are of more consequence than the end ; and application without any result is of far more use than result obtained without application.

Besides, why should the sacrifices which duty often requires from us in this world be concealed from children ? Why deceive them into a persuasion that life is only a series of pleasures ? Will they by this means be better prepared for encountering its trials ? Let us not present either virtue or learning to them with any false embellishments ; let them appear in all their natural charms, rendered still more apparent by our own evident appreciation of them ; and if we add to these our approbation, our esteem, our confidence, we shall find that we are pursuing the only path which leads to the end we have in view, and at the same time affords a correct idea of the condition of human life.

It is almost always injurious to hold out the promise of pleasure in education ; we are not certain of being able to fulfil the promise ; and even when we can do so, the previous expectation of it tends to diminish the actual enjoyment. Bestow on your children as much pleasure as you please, but do not talk about it. It is good, and even necessary for them ; tending as much to the support of their moral energy as food does to their physical strength. Let there be pleasures—well chosen ones—in abundance ;

but do not give them an artificial value, nor let them occupy the thoughts of children too constantly. If they have been always accustomed to consider *pleasure* as the great end of life, it will not be an easy task to substitute the idea of *duty* as their proper object. Leave instinct to its natural course, and do not purposely augment its power by the avowed assent of the will.—MADAME N. DE SAUSSURE.

9. *Of Conscious Obedience.*

The docility of infancy, unless it afterwards lead to a voluntary and premeditated obedience, will tend only to produce feebleness of character, indifference, or an inclination to be guided entirely by the opinion of others. But when the child's submission arises from a sacred feeling of duty, no such results are to be apprehended. Inspired with such sentiments of piety as are adapted to his age, he will soon understand that all human beings have certain duties imposed on them, and that his, individually, consist in conforming to the laws of parental authority. Obedience, founded on such a conviction, becomes itself a virtue: it requires a certain degree of firmness, and rather augments than diminishes the energy of his character; for the child who resists a temptation, that he may not transgress the commands of his parents, shews not only submission, but strength of mind also.

But it is not by assigning a reason for every command that such an effect will be produced ; it must be the result of the impression made on the child by your whole life ; by the rectitude which he observes in your conduct towards others, and the affection which he sees bestowed upon himself. By constantly justifying your commands, you seem to allow that they require an excuse, you appeal to the judgment of the child, and tempt him to seek for objections. And if you afterwards assume a tone of authority, which admits of no remonstrance, you are guilty of inconsistency ; for if your argument is too strong to be disputed, why have recourse to commands, and thus shew a want of confidence in that very reason to which you had appealed ? It would have been much better never to have brought it forward.

In the endless explanations attending such a plan, the motive generally held out, in order to enforce our wishes, is the personal advantage of the child. But this only serves to weaken the argument ; for in this case, (as in the one formerly alluded to, of instruction,) if you allege his present pleasure, he denies it ; and if you speak of his future advantage, he cares little about it ; or at any rate believes that he shall have ample time to provide for it hereafter. He will also be often tempted to think that it is enough if he conform to the spirit of your laws, without obeying them literally. Suppose, for in-

stance, you have forbidden him to eat fruit, because it will make him ill. As he knows that a small quantity will not produce this effect, he feels no hesitation in disobeying your commands to a certain degree ; but obedience, unless it be entire and exact, is of no value.

And not only must it be exact, but immediate. Let our commands be given in few words, but let there be no appeal from them. Every moment that intervenes between an order and its execution is an attempt at rebellion, instigated by self-love. The more we wish our system of education to be governed by a spirit of gentleness, the more necessary it is that it should also be conducted with firmness.—MADAME N. DE SAUSSURE.

10. *Of the Use of Words.*

Have those teachers who would confine their pupil's attention entirely to *things*, reflected sufficiently on the great power of *words* ? Have they considered that real objects,—objects even present to our senses,—will often remain unknown to us if their names be not brought to our recollection. Suppose, for instance, we accidentally meet a person whom we remember to have seen before, and whose appearance and voice are quite familiar to us ; we see and hear him, yet all our ideas concerning him are confused and imperfect,—when suddenly his name recurs to us, presenting us with

a key to unlock the storehouse of our memory, and we immediately recollect the time and place of our former meeting, with all its concomitant circumstances. By this singular and mysterious property of language, all the adjuncts of an object, though refusing to associate themselves with the object itself, are readily connected with its name; and thus by means of the *symbol* we obtain what we were unable to acquire from the *thing* itself.

We have only to attend to the discussions of any deliberate assembly, in order fully to comprehend the great importance of an accurate memory for words. How often is a noisy declaimer put to silence at once by a clear and correct exposition of names or dates! and how much injustice is frequently caused by the expressions of one speaker being inaccurately quoted by another! And yet, the habit of paying a proper degree of attention to the words in which any subject is expressed is one which will never be contracted, if the pupil have been taught to consider only the meaning of phrases, without any regard to the language in which they are couched.

—MADAME N. DE SAUSSURE.

11. *Of Guiding a Child's Mind.*

If we were to attempt to divine the secret of a prosperous management of children, perhaps it would resolve itself into the simple fact of a quick

perception of the train of their ideas, at any moment, and a facility in concurring with the stream of thought, whatever it may be, which, by the slightest guiding word or gesture, can be led into whatever channel may be desired.

The rule of management might then be condensed into the three words,—*discern, follow, lead*. That is to say, there is first the catching of the clue of thought in a child's mind ; then the going on with the same train a little way ; and, lastly, the giving it a new, though not opposite direction. By the means of a governance of the wandering minds of children in some such method as this, there is hardly any limit to the control which may be exercised over, as well their conduct, as their moral and intellectual habits. — ISAAC TAYLOR : *Home Education*.

12. *Analysis of the Intellectual Faculties, so far as relates to the Culture of each.*

It does not appear that any of our prevalent systems of education is founded upon the principle of bestowing distinct and systematic culture upon the several intellectual faculties. I am therefore labouring to supply what I have personally felt the want of, and I entertain the hope that, on this ground, I may be able to render some substantial aid to parents and teachers.

It is true that, of late, attention has been given

to the very important distinction between a blind endeavour to impart a certain amount of knowledge, on specific subjects; and that more enlightened method which, irrespective of the measure of attainments actually made by the learner, aims to give to each of the powers of the mind a training and a habit, such as shall secure to the individual the highest possible future advantage in the employment of whatever endowments nature may have conferred upon him: and yet, while the general principle has been adverted to, it has been but sparingly applied to the business of education; and scarcely at all followed out in reference to the mental powers, separately considered.

It is very true that the mere conveyance of those branches of knowledge which constitute a school course, does in fact carry with it, and imply, a training of the faculties; and such a training as may be altogether a sufficient preparation for entering upon the common engagements of life; but we have in view something more than this.

And yet, in speaking, as I am about to do, of the culture of the intellectual faculties *severally*, I by no means intend that each, singly, and separately, and in formal consecutive order, should engage the attention of the teacher; as if he were first and exclusively to bestow his pains upon the development and exercise of the power which stands first on the list, and then, in due course, to proceed to

the second, and so on. Nothing could be much more ill-judged or impracticable than such a plan of procedure. What is really meant is this ;—first, that the teacher should himself distinctly have in prospect the several ends he is to aim at, in the general culture of the mind, so as shall enable him to secure, at the last, the energetic and well balanced action of all parts of the mental machinery ; and secondly, that, in aiming at these ends, he should observe, as nearly as he can, THE ORDER OF NATURE ; that is to say, should not anticipate late developed faculties, not put the mind wrong at the outset, by doing first what should be done last, and last what should have been preliminary.

The want of an unexceptionable term, sanctioned by general use, meets us at the first step of this analysis. What I mean to speak of I must, though far from satisfied with the phrase, call the CONCEPTIVE FACULTY ; or that mental power by means of which what has already been present to the perceptions returns, or is brought back to the mind, in the absence of the object, with more or less distinctness, and is then dealt with as a material of cogitation ; or, after serving to lead on other ideas, disappears.

It is this power (a power both active and passive) of entertaining IDEAS apart from sensations and perceptions, which seems to be the first point of distinction, marking the superiority of the human

mind : not indeed that the animal orders are altogether destitute of any such faculty, for their possession of it may be indubitably established ; but the same facts which prove its existence, as, for example, in the horse, the dog, the elephant, exclude the supposition that it is more than a sort of moonlight, as compared with the splendour of the same power in man. It is the Conceptive Faculty which gives the earliest indication of INTELLECTUALITY in the infant, after the perceptions have become pretty well defined. Long before any other properly mental operation can be detected, the infant gives proof that it has already come into possession of a not slenderly furnished treasury of images, which, without its bidding, take their turns in enlivening its otherwise vapid existence ; and which, although as yet it has acquired no control over them, do not fail to obey the great laws that are to regulate all the mental operations of the adult.

A thousand familiar facts give evidence of the existence of this faculty, in the earliest months of life ; and a single and conclusive one is afforded by an infant's instantaneous recognition of the most imperfect representative symbol of a known object, and its ready connexion of an idea of such an object with the name of it, a few times repeated.

Too little attention has, I think, hitherto been given to the broad fact that a child's mental ex-

istence is constituted almost entirely of the workings of the Conceptive Faculty. The human mind, in its first period, may be said to be all IDEALITY ; for it is exclusively so during the half of its time, or more, which is passed in sleep ; chiefly so whenever no vivid impressions are made upon the senses ; and so, to a great extent, while left to find its own sparkling felicity among its toys and jimeracks.

The little regard which has been paid to this main characteristic of infancy and childhood has shewn itself in the neglect of the many obvious means that offer themselves for giving direction and vividness to the faculty, considered as the prime element of the intellectual life. Yet it is certain that more than a little may be done in this way, and to great advantage ; and as it may be made to appear that the rudiment of the power and splendour of some minds, as compared with others, is to be sought for in this same faculty, we may with reason consider the early culture of it as constituting the principal business of early education.

Very soon after the conceptive faculty has come into full activity, and indeed without any perceptible interval of time, the mind gives evidence, and in a great variety of modes, that it has acquired a SENSE OF RESEMBLANCE, and in a little time after, a SENSE OF ANALOGY, which, although in philosophical strict-

ness they should be kept apart, may with convenience, and in relation to practice, be treated of in conjunction. Here again a wide field is open to us, on which much may be effected by an intelligent and well directed teacher : and it is precisely on this field that should be laid the broad and solid foundation on which, at a remoter period, the active faculties may rear the superstructure of mental superiority.

No term employed in speaking of the states and operations of the mind is more loose and ambiguous, than the word **MEMORY** ; for it sometimes means what is only a modification of the Conceptive Faculty ; sometimes, the retention of arbitrarily associated series of particulars, or of trains of words and sentences ; and sometimes this same phrase is employed when we are speaking of the complicated operations of the higher faculties—the sense of analogy—the power of abstraction, and the imaginative perceptions.

A most important step is made in the business of education when we come, in a formal manner, to give exercise to the **POWER OF ABSTRACTION**. It is this power that is the chief prerogative of man, and the mainspring of his advancement in every path of knowledge and civilization. It is this, in its higher degrees, that distinguishes one human mind so vastly from another, and is the primary reason of the achievements of the few who lead the way in philosophy and the arts. To this point then the most

exact and systematic attention must be given ; for it is certain, on the one hand, that any scheme of education which leaves the faculty of abstraction either uncultured or accidentally developed, must be extremely faulty ; and on the other, that, if a method of training consonant with the principles of the human mind be digested, and ably put in practice, and the intention of which shall be to give the highest possible advantage to this FIRST POWER of the rational nature, every thing else will be easy and prosperous.

THE RATIOCINATIVE FACULTY—a complex habit, is, in the order of nature, late developed, and those who would see it expand under the most favourable auspices must direct their cares, not to the endeavour to anticipate its proper season, but rather to the means of carrying the mind on to a certain point of maturity, before any serious exertion of it is promoted. Nevertheless, from a very early period, and especially after the time when the faculty of abstraction comes under culture, the teacher will keep in view what is to follow, and will watch for, and improve, any favourable opportunities that may occur for giving a little initiative play to the reasoning power, so far as nature herself may appear to have developed it. To what an extent—an extent altogether incalculable, does the well-being of the individual, and of the community, depend upon the *soundness*, and the consistency, of the culture that

may be bestowed upon the reasoning faculty in early life !

The IMAGINATION—the imaginative sentiments and tastes, and the semi-moral emotions and habits of mind therewith connected, next claim to be considered : and there will then, and in the last place, remain to be treated several highly important mental habits, which bear upon the successful pursuit, either of common interests, or of philosophical, professional, or literary eminence.

The reader, it is probable, may not at once acquiesce in a distribution of subjects which gives the first place to the Conceptive Faculty, and the last to the Imagination ; thus severing by as great an interval as possible, faculties held to be intimately connected, and which are often spoken of as if the one were only a modification of the other ; I can only say, in this place, that I consider it as indubitable—that the conceptive power is the very earliest to appear, of the properly intellectual elements of our nature—the snow-drop of the mind's flower garden ; and that the imagination and the imaginative sentiments are the very last to be developed, where nature takes her own course ; it is the rich-coloured chrysanthemum of the intellectual parterre.

But even when the most assiduous regard has been given to the training of the several faculties and sensibilities of the mind, there remains a not less important labour, though of a rather indefinite kind, the

intention of which is to form and to confirm certain practical habits, upon the perfection of which, as I have just said, the efficiency of the mind, in relation either to common or to professional pursuits, almost entirely depends. The general intellectuality which ought to be the fruit of a course such as the one we are now projecting, requires (if indeed we have in view anything beyond the mere accomplishment of the individual) to be brought to bear, in a definite manner, upon the arduous labours of real life, whether commercial, professional, philosophical, or literary. What I am speaking of might be called a second education, which, after a youth has received his quantum of intellectual furniture, shall fit him to contend with specific difficulties, and to secure success in the particular line to which he may addict himself.

Much more, in this way, might be done than is often attempted ; and after a young man's destination in life has been fixed, he should undergo a discipline, aptly contrived, with a view to the critical points on which success is known to turn in that peculiar path of exertion. Whoever is conversant with active or scientific pursuits, or with the several professions, is well aware of the fact that, among a number of competitors in any line, it is not the man that seems, abstractedly, the best qualified to bear the palm, who ordinarily carries the prize ; but (excluding the not infrequent instances in which mere self-confidence

snatches what should have been given to merit) the successful man is he who best knows how to deal with the knots of the business he undertakes. In every course of mental exertion there is a certain portion in disposing of which different minds are pretty evenly measured, one against another ; but when all reach the knot, it is perhaps one only who instantly untwists it, and by this means gets some way a-head of his associates. Now if there be something of natural tact in this sort of ready ability, there is also something which may be acquired, or which may be perfected by a proper discipline ; and I think such a discipline may be laid down, and exemplified, in a practicable manner, and that it should occupy a prominent place in a complete education.—*Home Education.*

13. *Of Mental Development by means of Language.*

The vocabulary of words (whatever may be their grammatical form, and which is accidental merely—whether substantives, adjectives, verbs, participles, adverbs) relating to the visible appearances and sensible properties of the external world, is, if we speak of it in a mass—a RECORD of general facts, cognizable by the human mind, through the senses. And whereas no one human mind, however nice in its perceptions, or exact and excursive in its habits of observation, ever takes account of more than a portion,

and probably a very small portion, of the sensibilities and shades of difference which are actually cognizable by man, a copious and refined language such for example as our own, contains the records of notices of thousands of minds, and of minds of different classes, and of all degrees of precision.

Thus for example ; if the most frequently used words, or epithets, of a language are taken as representing the broad perceptions of the mass of mankind and as sufficient for all ordinary purposes of description and narration, there yet remain, in reserve, several sets of terms, representing the more exact, more penetrating perceptions of minds whose faculties have been exercised and sharpened by peculiar pursuits, or by the habit of admitting intense sensations. One such set comprises those descriptive words that find a place only in poetry, and which are nothing else but expressions of the highly refined perceptions of the most gifted and sensitive minds : and these very perceptions, unheeded by the generality of men, are, through the medium of the terms employed to convey them, brought within the range of all—forced upon the notice of all.

And again, there is another set of descriptive terms expressing those partial, and yet very nice perceptions which result from the avocations and mechanical employments of different classes of men. These technical words (and the amount of them is very great and their significance very remarkable)

though they may not ordinarily be available in writing or discourse, are worthy of attention when considered as records, or notations, of the sensible qualities of things. We might take, for an example, the description of the sea and sky in a storm, which would be given by a landsman, of ordinary sensibility, and ordinary acquaintance with language ; and which would well enough convey a general idea of the scene, in its broader features. But next, let us ask the poet, whose eye has a peculiar regard to the sublime and beautiful, and whose vocabulary contains a far more extensive assortment of terms, to take up the same theme ; and we shall find that he not merely associates many fine sentiments with the natural objects before him, but that he has observed and noted many circumstances of the scene that had altogether escaped the vulgar eye,—in fact, he has seen what the other saw not. Yet this is not enough ; for we must next call in the painter—the marine painter, and if he possess a tolerable command of language—the technical language of his art, we shall immediately feel that he too has noted a hundred nice shades and aspects of the scene, which not even the poet had discerned. Yet every such technical descriptive phrase notes a real circumstance of a stormy ocean and sky ; and each is a circumstance which, after it has once been pointed out to us, we shall ourselves be able, another time, to catch, and which we

should regret not to have had the power of observing.

We have not, however, yet done ; for if we go astern, and enter into talk with the old mariner who holds the helm, and get him freely to employ his slang terms in describing a gale of wind, we shall again be met, not merely by a new set of words, but by a new class of observations, so peculiar as not to have been regarded either by the poet or the painter. One step more will lead us as far as we need go in this illustration. Let us then turn to the naturalist, or the man of science, who having acquired those habits of refined observation that are requisite in pursuing the exact methods of modern science, sees and notes, in the agitated sea and atmosphere, many evanescent indications of the meteorological, the chemical, and the electric changes that are going on, and which had wholly escaped every eye but his own : and these more recondite phenomena he consigns to a technical phraseology, peculiar to science.

And now, if we take the entire compass of phrases employed by the common observer, the poet, the marine painter, the old sailor, and the man of science, and expunge the few which may be strictly synonymous or undistinguishable in sense, the copious collection will then constitute a vocabulary corresponding with all the appearances that are cognizable by the human eye during a sea storm. The set of

phrases employed by the first observer embraces only the most obtrusive features of the scene ; those introduced by the second have the effect of extending and refining our conceptions on all sides ; and thus in succession a third, a fourth, and a fifth pair of eyes is lent to us ; and by the aid of each, and through the intervention of language, we are made mentally the spectators of the scene five times over, and until nothing scarcely remains unnoted or unthought of.

Now it is manifest that, whoever, by the simple and easy means of collecting and making himself thoroughly acquainted with the meaning of the entire body of descriptive terms, as severally employed by different classes of observers, not only enlarges his knowledge of language, (a secondary yet important object,) but brings himself into a point of view whence every nice variety of the external world may be distinctly noted or vividly conceived of. To learn the meaning of all descriptive terms, whether common, technical, poetic, or scientific, is to furnish the mind with a museum of specimens containing whatever the most practised eyes have descried on the face of the material universe.

Yet this is but a portion of the benefit accruing from an extended acquaintance with descriptive vocabularies ; for, as any one knows, words are at once our guides and our goads in seeing, hearing, tasting, smelling, feeling, with discrimination. Words

are the stimulants of perception, and the indicator of the less obtrusive class of sensible facts. There are many thousand appearances in nature—there are innumerable varieties of figure, motion, colour texture, which would never arrest the eye, and of which we should take no sort of cognizance, if we had not first come to the knowledge of the word which notes the particular phenomenon, and thence been led to look for its archetype in nature.

The hearing of a new descriptive term, with its meaning, is like the “see there,” addressed by the quick-sighted and well-informed to the dull, when the two are taking their turn through a museum. It is thus that the reading of poetry opens the eye to a new world of phenomena—obvious indeed, but not actually observed until we receive this sort of aid. An appropriate instance in illustration of my meaning may be found in the set of phrases employed by medical practitioners for characterising the variations of the PULSE; for this example shews how very much the exactness of our perceptions depend upon the mental aid we receive from the use of distinctive terms. An unprofessional finger, how finisoever may be its sense of touch, does not usually discriminate more than four or five varieties of beat at the wrist; and we are content to say that the pulse is quick or slow, hard or soft, strong or weak. But the varieties noted by the physician, and retained in his recollection by the use of distinctive epithets

amount to as many as two-and-twenty. As for instance, the pulse is said to be either frequent, slow, intermittent, equal, regular, or of varying force; or it is full, long, labouring, bounding, feeble; or it is hard, sharp, strong; or it is wiry, weak, soft, yielding; or it is quick or tardy; or it is large or small. Now, by the mere aid of this set of phrases fixed in the memory, an unprofessional hand might be trained with a little practice to feel and to distinguish all these varieties. Descriptive words, then, and especially technical terms, might justly be called the *antennae* of perception. It is by these that we feel our way toward nicer, and still more nice sensations.

Or let any one give a few days' attention to a botanical glossary, storing his memory pretty well with those phrases which have been constructed for the purpose of noting what common eyes do not discriminate in the forms and colours of the vegetable world. The mere possession of these words enables him to see what, without them, he would never have noticed. We now put out of view the regularly conducted and scientific study of botany, and borrow an illustration from it with the single intention of shewing how the mere acquirement of descriptive phrases, understood in their etymology, and their actual or technical application, OPENS THE EYES, and leads the way to an extended and precise observation of nature. These same terms, then, so

employed to fix the attention upon particular phenomena, thenceforward discharge a higher function in regard to the conceptive faculty, serving to bring before the mind, not vague impressions merely of the more obtrusive features of nature, but all the varied richness of her garb, and with the utmost exactness. For example—

We will suppose the case of a person not as yet systematically conversant with botany, but who makes himself acquainted with such phrases as the following, employed to express the varieties of vegetable surface. And it is presumed that he possesses just so much acquaintance with Latin as is requisite for understanding such of these terms as are *læti* from that language.

Vegetable surfaces, then, are said to be—

RUGOSE, as the leaves of sage.

NETTED (reticulated) or covered with intersecting and raised lines, as the seeds of geranium.

HALF-NETTED ; when, in several layers, the outer one only is reticulated.

PITTED ; having numerous small shallow depressions.

LACUNOSE ; having numerous, large, and deep depressions, or excavations.

HONEY-COMBED ; excavated in the manner of a honey-comb, as the receptacle of the poppy-seeds.

AREOLATE ; divided into irregular angular spaces.

SCARRED ; marked by the scars left by what has faded and fallen off.

RINGED ; surrounded by elevated or depressed bands.

STRIATED ; marked by longitudinal lines.

FURROWED ; marked by longitudinal channels.

ACICULATED ; marked with very fine irregular streaks.

DOTTED ; covered with minute impressions, as if made by the point of a pin.

Or to take those characteristics of the surface which relate to appendages thereto attached. Vegetable surfaces are—

UNARMED ; destitute of spines or prickles.

SPINY ; furnished with spines.

PRICKLY ; furnished with prickles.

BRISTLY ; covered with rigid hairs, or straight prickles.

MURICATED ; covered with hard short excrescences.

SPICULATE ; having fine, fleshy, erect points.

ROUGH ; covered with rigid short points.

TUBERCLED ; covered as with warts.

PIMPLED ; with smaller tubercles.

HAIRY ; covered with weak thin hairs.

DOWNY ; with dense short soft hairs.

HOARY ; hairy, and so dense as to whiten the surface.

SHAGGY ; having long weak hairs.

TOMENTOSE ; covered with dense rigid hairs.

VELVETY ; the same, more dense.

WOOLLY ; covered with long, dense, curled, and matted hairs.

FLOCCOSE ; having tufts of dense hair.

BEARDED ; with tufts of long hairs growing on different parts of the surface.

SILKY ; covered with fine close pressed hairs.

COBWEBBED ; covered with loose, white, thin, entangled hairs.

CILIATED ; with hairs like the eyelashes, at the margin of a leaf.

FRINGED ; the margin set with thread-like processes, thicker than hairs.

FEATHERY ; having long hairs, which are themselves hairy.*

Or we might confine ourselves to the last fourteen terms, which express the varied appearances of hairy vegetable surfaces. Now, without the aid of this collocation and comparison of phrases, an eye only in an ordinary degree observant would, perhaps, never have noticed more than three or four of these varieties, and that only in a vague manner, and so as that the distinctive terms might have been used interchangeably and improperly, or as if equivalent one to the other. But when once the fourteen words have been consigned to the memory in connexion, and after some specimens of each kind have been examined, then in every ramble by the hedge-side fourteen distinguishable forms instead of three or four will be looked for ; and furthermore, by the aid of these distinctive terms, the mind exercises a command over the images of the various forms so distinguished. Deprived of the assistance of language, very few minds (probably none) could retain and recal with any degree of precision any large assortment of forms, shades, tints, kinds of movement, and modes of action. But with this assistance, the all but innumerable phenomena of the material universe, at rest and in motion as they

* See Lindley's Introduction to Botany.

come under the cognizance of the several senses, singly or in conjunction, are not only treasured up in the mind, but are held at beck and call, so as to be available in whatever way they may promote the operations of the higher faculties.

The acquisition of the entire compass, or UNIVERSAL VOCABULARY of descriptive words in our own language, I therefore consider as the chief preliminary work of a complete intellectual education. This labour thoroughly achieved, the mind is placed in a position (according to the rate of its original powers) whence it may advance with ease and success in any direction it may choose. Nor is the labour implied in making such an acquisition by any means severe or repulsive. Indeed, it may be so conducted as to be effected with scarcely any conscious effort.

It is by the means of classification that we must abbreviate our toils in this department of study; and in truth, wonders may be effected by this simple device. If nothing more were aimed at than to give the learner a liberal acquaintance with the language of elegant conversation, and of books, we might leave out of view for the present, the whole mass of technical and scientific terms; and might then rely upon the insensible operation of general mental culture for conveying so much knowledge of words as is requisite for taking a part in refined conversation, or for relishing literature. But we have in view

something beyond this—namely, the culture of the conceptive faculty; and for securing this end, it is necessary to include every species of descriptive language, whether technical or scientific, nor should we stop until the mind has been put in communication, by the means of words, ordinary and extraordinary, with every minute character of the material world.

I will now offer an example or two of the manner in which the learner may be exercised, in the usual practice of assembling, and of sorting, descriptive words and phrases, for himself. These exercises easily devised by the teacher, are of two kinds: the first of which may be called the Concrete method, and the second the Abstract:—

By the concrete method, I mean, the addition of epithets, in as great number and variety as possible, which are attributable to any given subject: as—the ocean—a river—a sandy desert—an arid ridge; or, the forms of animals—the flight of birds—the colours of flowers, or, as exemplified below, the forms and colours of trees, collectively and singly, excluding those terms that are strictly botanical or technical; as thus:—

A Forest is said to be—dense, dark, deep, entangled, pathless, gloomy, rich, magnificent, primeval.

Trees are—lofty, tall, low, bushy, ample, stately, umbrageous, wide-spreading, vigorous, decaying, shattered, leafless, scathed.

Foliage is—verdant, sombre, variegated, dense, fleaky, tufted, scaly, light, heavy, motionless, dancing, trembling.

The branches and roots are—gnarled, knotted, tortuous, slim, elastic, stooping, erect, fan-like, prone, supine, interlaced, aspiring.

The trunk is—massive, slender, twisted, helix-like, rugged, riven, hollow, ivy-clad, moss-covered, slanting, erect, fallen.

The bark is—rough, smooth, chapped, rigid, soft, interlaced, rugose, silvery, black, brown, grey, red, ashy.

The leaf is—thick, thin, polished, rough, indented, even, scalloped, triform, hairy, downy, trembling, green, yellow, red, brown, dark, light, bright, dull.

To these might easily be added as many more ; and if the learner be furnished with an instance or two, so as to set him a-going, the exercise, agreeable in itself, will tend at once to enlarge his acquaintance with language—to give him a ready command of it ; and, which is what we here principally intend, to impart richness, precision, and vivacity to the conceptive faculty.

Or, to take another example:—

The sky is spoken of as—serene, stormy, clear, overcast, misty, hazy, foggy, gloomy, lowering, bright, resplendent, brilliant, deep, dull, brazen, ruffled, red, grey, azure, vaulted, boundless, bounded.

At night it is—blackened, sombre, dim, sparkling, spangled, starry, magnificent.

Clouds are—thick, thin, heavy, light, dark, tender, fleecy, streaky, dappled, fleaky, massive, dense, mural, stormy, rushing, flying, flitting, motionless, broken, scattered, condensed, distinct, defined, commingled, confused, heaped, piled, towering, jagged, rounded, in tiers, or strata, black, leaden, blue, red, pink, orange, fiery, glowing,

cold, purpled, golden, silvery, fringed, feathery, but swollen, swelling, billowy, bulging, stooping, l mantling, rainy, snowy, gathering, clearing, electri

To these, nearly a hundred terms, descriptive ordinary overhead appearances, the poet would many others, of an allusive or figurative kind; as—gay, glad, melancholy, cheerful, ominous, tentous; and the painter not a few of a peculiar invented, partly, to fix in his recollection c rare and peculiar aspects of the heavens; and 1 (and perhaps chiefly) to indicate those character of these same appearances, that demand atte when consigned to the canvas, whether skilfu unskilfully; such are the terms—woolly, m dirty, chalky, muzzy, harsh, warm, cold, clean, heavy.

It is an exercise of excellent tendency to put as great a number of epithets as we can thir applicable to some one subject, such as the foreg and then, cutting up the paper, and shufflin pieces, to require the learner to arrange the line; and in an order indicating the simplici the complexity, the proximity or the remotene each term, in relation to the natural order o perceptions, and of the impressions thence resu as for instance—a rock, or a mass of rocks, c dered as to its *size*, is—

(1st. Large, tall, wide, deep.)

(2nd. Lofty, vast, huge, massive.)

(3rd. Stupendous, grand, sublime, awful.)

Or, considered as to its *form* and position, it is—

- (1st. Square, pyramidal, rounded, perpendicular, arched, obtuse, riven, cleft, jagged.)
- (2nd. Precipitous, steep, rugged, naked, impending, inaccessible, cloud-capped.)
- (3rd. Frightful, melancholy, threatening, grim, stern, dread.)

In the above examples, the words embraced in the first crotchets, relate to simple qualities, cognizable immediately by the senses of sight and touch. Those included in the second, express notions resulting from some tacit comparison, or relation, conjoined with a slight indication of the feeling with which such objects are contemplated. Those in the third set are tropical, and imply some sort of prosopopeia; or an attributing of the qualities of mind to natural objects. Several important intellectual habits must have been acquired by a boy who could take a handful of such slips, and sort them correctly, on the principle here mentioned.

Descriptive terms, collected in parcels as above, are concretes; that is to say, they are taken as the adjuncts of some one subject. But the same class of words are susceptible of assortment, or classification, in the abstract, or taken as related to the mode in which the qualities they signify are entertained by the human mind. A comprehensive scheme for the classification of this portion of language would cover a great space in a volume like this; nor can I attempt more than to offer a few samples of the way in which

easy exercises may be prepared for learners, and given to them, rather as pastimes than as lessons.

First, then, let it be required to produce the principal terms that are employed to express those qualities of the material world which are perceived by one of the senses, unaided by the others, and apart from any inferences derived from other sources and apart also from any notions of relation or comparison; as, for instance—

The simple sensations of **SMELL** are indicated by naming the substance whence they proceed; as the smell of musk, lavender, the rose, the violet, brimstone, burning feathers, &c.

The simple sensations of **TASTE** have terms in the abstract for the principal classes, such as—sweet, bitter, sour, acid; and concrete terms for the varieties, such as—flavour of an orange, apple, grape, of port wine, champagne, of beef, mutton, veal.

The simple sensations of the **MUSCULAR POWER** have appropriated to them such words as—hard, soft, (heavy, light

The simple sensations of the **TOUCH** (seated in the cuticle) are indicated by the words—hot, cold, warm, rough, smooth, soft, sharp, blunt, tingling, tickling, itching, smarting.

The simple sensations of **HEARING** are noted by the words—loud, low, shrill, deep, sharp; and still more accurately by the system of musical notation. Single variations of tone are indicated by employing individual names, as—the voice of John, the voice of Mary, &c., each of which is absolutely peculiar—an elementary tone, in recollection which we are seldom mistaken.

The simple sensations of **SIGHT** are peculiarly definite, and the terms appropriated to them are never confounded such are the words—bright, dark, white, yellow, orange, red, blue, purple; and all their intermixtures, until we reach the nicest distinctions, and are obliged to have re-

course to concretes, as in the phrases—peach-blossom, rosy, flesh-coloured, vermilion, ash-coloured, jet, ebony, &c.

A sample of terms of this elementary order having been produced by the learner, he should proceed to adduce under an analogous arrangement, a second set, comprising those terms that indicate qualities known to us by an unconscious comparison of the sensations of two or more of the senses, or by comparisons of different sensations of the same sense ; as thus, and to invert our order—

Objects perceived by the visual organ alone, but yet unconsciously compared with others, present or recollected, are said to be—dim, distinct, vivid, faint, glowing, faded ; or if judged of by the convergence of the two orbits (touch apart) they are discerned to be near or remote.

Objects perceived and thought of by the means of the combined sensations of sight and touch, or of muscular movement are—large, small, wide, narrow, high, low, spherical, hollow, convex, sharp, blunt, pyramidal, cubical, jagged, even, abrupt, slender, bulky.

Bodies, the qualities of which are perceived by the sense of touch, and of muscular action mainly, but known still more accurately by the concurrence of the perceptions of sight (and this class is very numerous) are said to be—solid, fluid, (or liquid,) gaseous, glutinous, sticky, elastic, pliable, tough, rigid, brittle, dense, porous ; or the texture of bodies is considered as—fibrous, crystallized, spongy, woolly, compact, hairy, downy, reticulated, vascular, granulated.

Bodies, the qualities of which are judged of by an intimately combined comparison of the sensations of touch, muscular power, sight, smell, and perhaps taste, are said to be—oily, greasy, resinous, mealy, soapy.

Bodies, the qualities of which affect, in an undistinguishable manner, and simultaneously, the gustatory and olfactory organs, together with the sense of touch, and sometimes of muscular power in the tongue, are called *acrid*, crude, pungent, astringent, rough. Or if the smell chiefly, and the gustatory organ indirectly and obscurely are affected—aromatic, putrescent, ammoniacal.

The sensations of the auditory organ are rarely combined with those of the other senses, and only in the way of imperfect coalescence: such are certain vibrations of highly elastic substances, affecting simultaneously, though hardly conjoinedly, the ear and the sense of touch. But sound and musical sounds especially, generate highly complex sensations, as related one to the other, successively, as in melody, or simultaneously, as in harmony.

A second series of exercises may be furnished by producing those terms (belonging to each of the senses) that express some relation of the qualities of bodies to natural uses, ends, or artificial purposes such are the words—ductile, malleable, soluble, arid, humid, tenacious, penetrating, ponderable, impalpable, opaque, transparent, refractive, reflecting, radiating, corrosive, stimulating, absorbent, dispersive, sedative.

A third series may consist of those terms, many of them scientific or technical, which express the elementary characteristics of bodies, or their general or specific adjuncts; such as—siliceous, argillaceous, metallic, vitreous, ligneous, bituminous, saline, gummy, resinous; or—granivorous, carnivorous, gregarious, predacious, viviparous, oviparous, biped, quadruped, *reptile*.

A fourth series, embracing a wide variety of terms, would include those designations of the sensible qualities of bodies which indicate, or connote, the feelings, pleasurable or painful, excited in us by them : such as

First, the more simple and organic, namely—tepid, hot, scalding, cold, refreshing, burning, irritating, glaring, dazzling, stunning, sweet, soothing, thrilling, melodious ; or, secondly, the more complicate, and such as involve associations with the intellectual and moral faculties ; as the words—beautiful, sublime, pleasing, gentle, grand, magnificent, tremendous, terrible, awful, astounding, exhilarating, melancholy, monotonous, invigorating, cheerful, gloomy ; or—complicated, complex, simple, abstruse, recondite, obscure, evanescent, refined, subtle.

Under heads such as these, and which may be varied in many ways, at the pleasure of the teacher, and for the better exercise of the learner, it will be easy to include the entire vocabulary of concrete terms belonging to the English language ; and those who have not made the experiment will be surprised, when they do so, to find, on the one hand, the readiness and facility that may soon be acquired in going through with them ; and, on the other, the productive consequence of such methods : for not only do they confer upon the mind a command of language, and not only do they generate a habit of nice discrimination, as to the sense of words and their real dependence, but they put it (and this is our immediate purpose) into ready communication with the material

universe, in all its innumerable aspects, and store the imagination with vivid conceptions of whatever is cognizable to the senses.—*Home Education.*

14. *Of the Liturgy, and Incidental Scriptural Instruction.*

DR. BENSON TO MRS. BARLOW.

My dear Madam,

I AM happy to endeavour to answer your questions respecting my attempts to make our liturgy as well as the catechism useful to my young flock. Remember, I am but a learner in the art of teaching. I am trying to grope my way as well as I can, persuaded that if I persevere, new lights will break in upon me.

It is difficult, without much experience, to conceive the *very limited* vocabulary of poor children; and there is much waste of time and pains from attempting to explain passages of Scripture, of the catechism, of the liturgy, &c. until they have previously acquired the language in which they are written. The usual way, I believe, is to stop as you go, to explain the words. I think that this scatters the minds of teachers and learners. To give an example: suppose I wished to explain the confession in the liturgy, I might begin by talking of the duty of acknowledging our unworthiness, God's hatred of sin, our guilty nature, our constant transgressions, and make the children read over the confession, endeavouring to *simplify* and explain the words as I go on. But then

I much doubt whether I should succeed in securing their attention, exciting their devotion, or even in clearing up their understanding with respect to the sense of the prayer. I had rather previously go through a preparatory liturgical vocabulary, in the form of spelling-lessons, and chalk-writing exercises ; after which, I think that very short comments would be required in giving religious instruction on the liturgy : and we should perceive that our grand stumbling-block in the way to instruction is the want of clear definite ideas connected with words. Suppose the following spelling-lesson : " Let us write on the wall to-day a few rather difficult words ; and then try if we can find out exactly what these words mean. I have got a list of words in my hand ; I will read them one by one, and you shall guess how they are spelled, and tell me how to write them on the wall." Then read these words one by one, and help out the spelling if they are unable to direct you. " Guilt," " transgression," " iniquity ;" " trespass," " penitence," " contrition ;" " acknowledgment," " confession," " mercy," " pardon," " reconciliation ;"—" to ransom," " to redeem," " to absolve," " to purify," " to intercede," " to mediate," " to manifest ;" " praise," " thanksgiving," " benefits," " blessings," &c.

These are only a few examples ; perhaps I give five or six words at a time, write them on the black board, illustrate them by short sentences, sometimes

by anecdotes ; and I invite my hearers to prove to me that they understand the words, by producing their own familiar illustrations of them. These words are not illustrated by religious phrases only ; we treat the lesson as a lesson on language, without supposing before-hand, that the lesson is preparatory to an explanation of prayers. My object is to attach clear definite ideas to words which occur in our liturgy and in Scripture, *before* I attempt to enlarge on passages in which these words occur.

From the constant practice of defining words, I now begin to find my boys are uneasy, if, when I read to them, I pass over a word which they do not clearly understand, and frequently they stop me, begging for an explanation ; but I wish, as much as I can, to forestall these interruptions, as they scatter the mind from the drift and scope of the sentence. When once the words are made clear to them, I often find it best not to dwell too minutely and distinctly on the exact and full meaning of the passage itself, in which these words are used ; but leave it to the children, to add a more or less full comprehension of it, according to their age and apprehension. A passage which conveys perhaps, to my mind, a very deep sense of the guilt of sin, the infinite unsearchable mercy of God in the redemption, and fills me with awe and gratitude for the mysterious dispensation of the Gospel, will probably but feebly affect my little hearers ; and I should, I believe, act most injudiciously, were I to

attempt to make them echo my feelings by prompting words in which I express them to myself. I think I have observed, that it is a common and pernicious error to attempt to make children *word* one's own thoughts and feelings, and then to imagine one has really succeeded in instilling these thoughts and feelings into the children. — MRS. TUCKFIELD: *Education for the People*.

15. *Of Public Examinations.*

DR. BENSON TO MRS. BARLOW.

My dear Madam,

I AM quite of your opinion : let us have no day of public examination, no prizes, no rewards, in our school. Public examinations may be amongst the means of increasing the funds of schools, or of shewing off the masters ; but they do not tend to the improvement of the scholars. We need no fictitious resources of this kind ; our school is becoming daily more and more a scene of animation and exertion. We should, by public examinations, not obtain greater zeal or industry, but we should run the risk of substituting a desire for pence, for clothing, for admiration, for the motives which are now operating with our boys—a desire of satisfying their conscience, of doing their duty, a desire which arises from the experience they have of the inward satisfaction attending all honest endeavours to deserve the favour of God and man.

A healthy, eager appetite for knowledge will be pretty certain result of the right manner of communicating it ; and that appetite once acquired, how much is done towards improving and elevating the moral character ! Artificial excitements are only habits. We may obtain a premature development of intellect, but not ultimate health and vigour, and we have injured and weakened the physical and moral health. Besides, public examinations with respect to the religious knowledge of our pupils, would, in our opinion, both in teachers and learners, destroy simplicity, humility, and that genuine piety which ever seeks retirement. Teachers, in these examinations can only display the knowledge of certain facts communicated to children, or make them repeat certain forms of words. The religious feelings and emotions which should ever be connected with these words and facts, the very presence of strangers and of examinations must effectually dissipate and destroy. Neither teachers nor learners can be in that calm, collected, serious state of mind, can feel that affectionate ease and freedom, without which it is impossible to give or receive religious instruction.

The mind is so constituted, that the necessary degree of emulation exists of itself, and should be allowed to operate unnoticed, never drawn forth, encouraged, or called into play. No places should ever be taken on any account : laudable curiosity, judiciously gratified, will be found a sufficient stimu-

to attend to clear intelligible instruction. If a master is not capable of giving this sort of instruction, both he and his scholars had better be employed in breaking stones on the road, than in carrying on a mere semblance of teaching and learning. The approving eye of a good master is a sufficient reward ; for he will have secured the love and gratitude of his pupils. Let no prizes be given ; they are generally unjustly given, and the injustice must be felt ; because no person can judge of the degree of exertion a poor neglected child may have used to gain the prize, which some slowness of apprehension, or nervousness, or modesty, has deprived him of, or of the depression of spirits he experiences, when it shall have been awarded to a bold conceited boy of naturally sharp intellect. Let nothing be done to interfere with the full inward satisfaction of having done that which it was their duty to do. Allow a satisfied conscience to experience this full inward reward : that, in fact, is the praise of God. Do not, by fictitious means, allure children to prefer the praise of men. Public exhibitions, at which prizes are given, are very dangerous to the Christian and moral character. Children should never be led to suppose that display is the end in view in acquiring knowledge. Let the method of teaching only be such as to make the child feel that it is storing up that which will qualify him to be a useful and honourable member of society, enable him to be happy himself, to help to render

others happy, let him only clearly understand that educators have his future interests at heart, that there is a good, useful end in view, and explain often as possible what that end is, and he will work cheerfully and willingly for that end, and invent a multiply for himself the means of obtaining the end. Thus his moral character will be formed, and a high and noble turn of mind will have had its foundation securely laid. Teach him to labour for applause, for money, for medals, &c., and you are building on a foundation of hay and stubble.—MR TUCKFIELD.

16. *Of the Danger of Over-teaching.*

A master should speak but little, and always in a low tone of voice ; and then he will be pretty sure of being listened to. I believe it is a good rule, that when any advice or instruction is to be given to a child in a class respecting what he is doing, a teacher should give it in a very low tone of voice to that individual child, and then require him to repeat the direction aloud and distinctly to the class. I believe that children ought to be helped and encouraged to learn of themselves as much as possible. They may be much aided as self-learners, much hindered by over-teaching. The truth is, I think, that if natural capacities are not paralysed by forced inaction, misdirected in their activity, when reading and writing have been partially attained, the teacher need

scarce do more than let them employ themselves under his direction. When a difficulty occurs, when some point is to be explained, we should not hasten to explain it, but rather help our pupils to find out the explanation, and to overcome the difficulty themselves. Certainly the most valuable teachers are the guides to self-teaching ; and more time is saved in the end by requiring the pupils to learn for themselves, and to think for themselves, than by teaching everything, and thinking for them.—MRS. TUCK-FIELD.

17. *Of Teaching Orthography, &c.*

1. *Orthography*.—There is no way of learning spelling but by constant writing ; but much writing on slates or copy-books is fatiguing, and places a child in an undesirable attitude ; writing with chalk on boards or on the walls never fatigues.

2. *Grammar*.—This need not be taught scientifically ; I doubt even whether the names of the parts of speech are of much consequence to our children. However, they may easily be explained in familiar oral lectures, and the children may be encouraged and assisted to invent short sentences in which they are introduced. In everything you teach, only proceed gradually step by step to *invent* and *discover*. Set the little minds at work, and then only guide them to work in the right direction.

3. *Writing*.—Begin first on the walls with chalk,

then on slates ; but require, from the first, careful writing ; and let the children, as soon as possible, acquire the habit of writing straight without lines. I believe it is much recommended, to let children copy the printed characters by way of giving accuracy and pliability of hand : it is certainly a good exercise of observation, and I advise you to try the plan.

4. *Geography.*—Geography is best taught by familiar conversations and short oral lectures. The geography of plants, the description of the inhabitants of different countries, and of their productions, will make such lessons interesting ; and gradually some historical knowledge may be interwoven with them. Maps and prints should illustrate these lectures. After general notions have been given, the names of countries, towns, rivers, &c., are readily learned by children without the assistance of a teacher. Allow six or eight boys a map and gazetteer, and common little books of geography ; and with the help of the steadiest boy of the class, acting as deputed president, they will soon learn names. Then add from a gazetteer as many particulars respecting the country you propose for the subject of the lesson as you can require. By such means, *the grand principle of education—making a child his own instructor*—is worked out. A real love of research, and interesting occupation, are given. A school-room, instead of being filled with automatons, becomes a scene of cheerful,

energetic alacrity and pursuit of knowledge. The boys, it is true, will not all be seen standing in erect postures on given lines, as if afraid to think, or to move a muscle except by word of command ; but such a discipline does not promote mental improvement.

5. *Reading*.—As a general rule it appears to me, that *till* good reading is acquired, and in short, until the mind is to a good degree educated, the substance of the lesson which is going to be read should be in the minds of the children before they read it. I suppose I am sitting in the midst of a class ; I say, “ We are going to read this morning on such or such a subject, do you know anything on that subject ? ” Then I collect whatever little information the children happen to possess on the subject ; and sum it up, saying, “ This is all you know about it.” I proceed to tell them what I know myself about it, and what I have further collected from the book we are going to read, and which I have in my hand. Then I ask them to tell me what they have collected, which they did not know before, from what I have told them ; and again I collect for them the sum total of their knowledge. Afterwards I say, “ Now I will read to you all that the book says about it. Listen attentively, and tell me if I use any words you do not quite understand.” Afterwards I ask them to explain to me all the words in the lesson which I suspect may not be clearly understood ; and I assist

them to define these words, and to prove to me they understand them, by introducing them into familiar sentences. After all this previous preparation, I allow them to read the lesson in short portions. The boy who reads should always stand out in front of the class, and at some distance from it, and read very distinctly; and the listeners should be invited to point out any inaccuracy in pronunciation or emphasis. Lastly, I should desire each boy to write on his slate, or on the wall, what he can recollect from the lesson which has been thus read and explained.

—MRS. TUCKFIELD.

18. *Of the Excitement of Feeling in Infant Schools.*

I dislike the usual practice of arranging children, between the age of two and seven or eight years, on the rising benches, generally called the gallery in an infant school, except for singing. I think that it would be better to separate the little ones, below four or five, from those of five, six, and seven years old. Children of two and three may count their fingers, fetch and carry wooden bricks, look at pictures,—perhaps learn letters, or put out little words, with dissected alphabets. They may hear little infantine stories—be taken out frequently to play in the playground. Between four and eight years old, children may learn to read easy words and sentences, may begin to form letters on black boards, to dictate words and sentences which they can see written before

them, and go through some usual routine of little easy lessons. Besides which, they may be employed a part of every day in some manual employment. Boys may learn knitting and straw-platting; girls, in addition, sewing, marking, &c. There is something calming to the turbulent spirits of children, and which has a good moral effect on them, to be obliged, at certain hours, to sit quiet, and to perform some prescribed manual tasks in silence. It is better for them, I believe, than the constant marching and clapping of hands, stamping of feet, &c., practised in what is called the "infant system." Children of six and seven years old ought to be inured to some degree of exact labour, instead of being always kept amused and excited. They ought to have something to do which requires some pains and self-denial, and which imposes, at stated intervals, some restraint on the natural volatility of their age. A child of seven or eight years old, who leaves an infant school, conducted on this *Infant System*, is very ill prepared for regular, dry, every-day tasks. The love of novelty has been excited by the multitude of objects it has been accustomed to see and to hear lectured upon in the gallery. "Shew us something new, teacher, to-day," is a common request. This is not genuine curiosity, or desire of knowledge. It is the love of variety and novelty, and proceeds from a sort of rambling dissipated state of mind. I had rather take a boy at eight years old, who had been helping his

mother to nurse a baby, or running on errands, picking stones, or even who had been learning his letters at a dame's school, supposing always that he has been kept from contamination, and treated with kindness and affection : I say, I should have more hope of awakening that mind, and of finding a vigorous intellect : I had rather have that boy to educate than a little being who had been holding up his hands to answer questions in an infant-school gallery, who could tell me something about the solar system, the prophecies, mechanics, natural history, and geography ; whose mind had been overstrained with mental calculation, and his memory burdened with scripture texts and hymns. I have known such a child, when told to write or learn a lesson exactly, yawn and say, " O, it is too much trouble, I have heard all that from the teacher long ago." When he answered from the gallery, the master said, " Good boy—give him a clap ;" or the visitors exclaimed, " How wonderful !" Without this stimulus, learning now appeared a mere drudgery. The most common mistake, I think, is to suppose that it is an object to store the minds of children with a great number of facts, whereas it is far more important to inure them to application, which from the force of habit will become easy and even agreeable, and which always brings with it its own reward.—MRS. TUCK-FIELD.

19. *Of Teaching Geography.*

Imagine me *sitting down*, with about thirty boys seated before me in three rows, with partitions nailed across the benches at proper distances, to keep each boy seated in his right place. Every boy who is able to write tolerably, has a small slate in his hand. A common inflated globe is suspended from the ceiling, and a large map of the world hung up on the wall.

Now, as some of my thirty boys are tolerably well instructed, I must not insist on keeping *only* to the precise under-ground work; and as some are, of course, stupid and ignorant, I must often descend to the very lowest capacities. The rapid scrutiny of the different countenances, and the intuitive manner, in which, as by instinct, habit enables one to adapt one's countenance and voice to the different beings before one, is wonderful.

My first object is to obtain a calm, collected, cheerful state of mind: and, by a countenance in which there is a due proportion of great sweetness, cheerfulness, great energy and steadfastness; an almost constant alternation and vibration between these, so that they should seem combined, to convince my auditors we are not assembled merely to amuse ourselves; that we are really going to work and labour; but that our labour is going to be cheerful and delightful.

“Are we all prepared? all quiet and silent? We are going to learn something about this globe. I wonder how many inches it measures round.” Probably the number of inches would be suggested by some at random. “Here is a string; here is a yard measure divided into inches: we can find out. It measures, you see, so many feet and inches. Well, this globe is meant to give us an idea of the shape of the earth, on which we live: but, instead of measuring the earth by feet and inches, we must measure it by miles.” Then I ascertain that all know how many inches there are in a foot; feet in a yard; yards in a mile, &c., and also that they all know how long they should be walking one mile, five miles, &c. Then I proceed to say, “This world on which we live has been measured: it measures a very great number of miles. How many miles do you think?” Some will guess, perhaps, hundreds; some, thousands. “I think I must tell you. I know, because I have been taught, that it measures about 25,000 miles.” I then ascertain whether they know how many hundreds there are in one thousand, &c.

If there are any calculators equal to it, perhaps we proceed to reckon the length of time it would take to travel round the earth, at the rate of so many miles a day. I point out the land and water on the globe. I name the great continents and the great oceans. These names are written on the slates; and *I write them on my black board for those who cannot*

write. I ascertain whether they know the points of the compass—if they can point to the place where the sun rises and sets—where it is at noon—whether they have ever observed the difference of the situation of the sun in the heavens in summer and winter. We point to the south, not on the map or globe, but really to the south; and I tell them, that if they travelled on that way, they would get to hotter countries, where the sun would shine more directly over their heads; that if they travelled north, they would arrive at cold countries. All this may, to some, be familiar: but it is surprising how many poor children never observe anything; and I should be far more anxious to create observation on what surrounds them, than to make them learn the names of towns, rivers, lakes, &c.—a very unimportant part of geography, and one very soon acquired. I never talk of zodiac, equator, ecliptic, or take any notice of degrees of latitude or longitude, and so forth—all this in due time: but I endeavour to begin with some interesting facts and relations, and then point out the parts of the globe to which they have reference. I ask which continent lies to the west, and which to the east of Europe. I tell them that America was not known till some hundred years ago. I explain why this happened, and talk of the infancy of navigation, explaining familiarly about canoes, and the early manner of creeping about near the sea-shore. This leads me on, perhaps, to the

mariner's compass. I ask them to name some articles in common use, which we could not get in our own country. I tell them of the difference of climate needful for the production of these articles. If the map of Asia is shewn, we talk of our first parents, the deluge, the dispersion of mankind. We shew Egypt, the Red Sea, the land of Canaan: and our oral lecture that day may consist of a summary of some of the events recorded in the Old Testament. Another time we talk of the wilds of Tartary, the Steppes—the manner in which the inhabitants live in tents, their horses, &c.: or, we describe Siberia, Kamschatka, the rein-deer. At every step I try to sound the depths of ignorance, and clear away the many unsuspected stumbling-blocks which impede the acquisition of knowledge. If we visit Africa, we talk of the burning sandy deserts, of the earliest mode of carrying on trade, by means of camels—we describe the camel. The description of the productions of the different parts of the world, and the manner in which the ocean facilitates so providentially the interchange of commodities, are always interesting topics. We imagine vessels sailing to China and India; and with a pointer we trace the track they follow on the ocean, and imagine them returning to our great seaports, laden with tea, rice, cotton, &c. If the sugar-cane is our theme, we are led on to speak of the slave-trade. We talk also of the coast of Africa, and the state of its inhabitants.

I do not enlarge on all these subjects much at first ;
I first give mere outlines, and then fill them up
gradually as occasion serves.

This manner of connecting the names of countries
with their productions, and of explaining the mode
of obtaining these productions, enlarges the circle of
the children's ideas and interests: it admits of bringing
in much collateral information; and I know from
experience, that a great deal of knowledge is gained
by this manner of travelling round the globe. The
names of places not before known are always written
on the walls and slates; and afterwards pointed out,
not only on the globe, but on the map of the world.
Yesterday we happened to talk of pearl fisheries—
the Persian Gulf—the operation of diving was described—the fear of sharks. Last week the description
of tiger-hunts in India, and of crocodiles in the
Nile, gave great pleasure, and some engravings from
the Penny Magazine were shewn.

We had one day an interesting lecture on the
whale; I described the mode of harpooning the
whales, cutting off the fat, or blubber, placing it in
tubs in the ship, cutting the whalebone, &c. Then
I pointed out Greenland and Newfoundland, and
told them the nature of these regions and their inhabitants, and the number of ships and merchants
employed in the whale and cod fisheries. By turns,
we gave the boys a pointer to shew on the globe the
situation of Europe and America, and the track on

the ocean the whale-ships must follow. We pointed out the relative situation of the different continents, and the Atlantic and Pacific oceans. I am anxious always to get a general idea of the whole world before we give the names of many towns and rivers. A bare list of names, unassociated with interesting facts and ideas, supplies no real food to the mind, though children are very quick in learning them. I would not even begin with the geography of England regularly, till I had taken many little interesting excursions over the globe.

There is afterwards an art in collecting and summing up the substance of the lesson for the day.

After our conversation is over, I should, addressing myself alternately to different boys, say, "Can you tell me what I have told you about the whale, or the elephant?" or whatever has been the subject of the lecture. Then, as a boy may know a great deal which he cannot arrange in words, I would assist him as thus:—"What did we say about the blubber?" "What about the tusks of the elephant?" &c. Then I would ask another boy; and so by degrees I would draw from them a tolerably accurate, well-expressed account, by word of mouth, of what I had said. After this was done, I would ask, "Are there some who think they can write a part of what we have been saying?" "Well, go and try: those who cannot write shall tell me what to write, and we will make

out our story together." By such means, we give at once a lesson on natural history, on geography, on language, and on orthography : and, above all, we create an appetite for knowledge, a desire to know a little more another time.

Pray remember that these hints should be worked upon very gradually, and probably only occasionally. Always avoid over-excitement of mind ; and let such oral lectures as I have described be the recreation after the more exact labour of very good reading and very good writing. Above all, pray remember never to give long lessons and lectures, and not to tell the children, at one time, *more than they can dictate to you afterwards, in accurate language, and write on the walls and on slates clearly and well.* Let accurate language, distinct articulation, good pronunciation, and good writing, never be lost sight of. I had far rather find a boy able to tell me something clearly and accurately, and to write in a distinct manner about a whip or a stone, an onion or a potatoe, a rat or a cat, than one whose mind is crammed with facts of which he has only vague, indistinct impressions. It has often occurred to me, that much time would be saved to judges and juries if a rustic witness had been so trained as to be able to give a straight-forward, intelligible account of any single fact.

Though I by no means wish to make our little future labourers geographers or astronomers, yet I see

not why we should object to expand their ideas and to raise their feelings by giving them some notion of what has been ascertained respecting the earth they live on, and the heavenly bodies by which they are surrounded. You probably are provided with "Parley's Tales of the Sun and Moon," with "The Parent's Cabinet," and other books, which contain familiar elementary details on these subjects. I often select from these the substance of my oral lectures. Sometimes I give a lecture on the solar system, which always excites great interest. We suppose ourselves in the centre of the sun, and imagine the planets revolving around us. We descend to the earth, talk of the atmosphere which surrounds it, and imagine how the clouds would appear to a person coming to the earth from another planet. I tell them of my mountain tours, of the clouds hanging below the summits of high mountains ; and how, in my Alpine excursions, I have heard thunder and seen lightning below me—the clouds hanging below my feet. Then we produce the globe ; observe on what principle it is divided into zones ; and we talk of the characteristic vegetation of each zone.

In other lectures, I describe the lake and mountain scenery I have seen abroad ; and sometimes I shew them a print or drawing. We look at a plan shewing the comparative heights of mountains in *different* parts of the world ; or we trace the grand

ranges of mountains, and observe the mighty rivers which flow from them. The 103rd and 104th and other psalms are often quoted with delight in the course of these lectures. Occasionally, the ocean is our theme. Some idea is given of the origin of commerce and navigation. Select passages from "The Life of Columbus," and "Cook's Voyages," are read. The books themselves are lent to the elder boys to read at their leisure hours; and, at a future lecture, they are invited to relate aloud any anecdote and circumstance which has struck them; and thus a ready and accurate use of language is imparted. By these and similar means we endeavour to enrich and cultivate the minds, the hearts, the imagination, of our boys. "What!" some will say, "cultivate the imagination of peasants! What have they to do with imagination?" They have to do with it, because the Almighty has bestowed it; and it is with this, as with all His gifts to man—unless properly cherished and directed, it will prove a curse instead of a blessing. You know that we teach in our school the elements of lineal drawing. Besides this, I encourage, by gifts of pencils and blank books, any of our boarders who have a turn for drawing, to amuse themselves by sketching from nature. They collect and dry specimens of plants, pretty stones and shells, insects, feathers, butterflies, &c. We examine them with a microscope. Now, I do not want to make any of

them artists, botanists, zoologists, or conchologists ; but I wish them to look on nature with a religious — nay, with a poetical eye ; and I care not whether they ever know any scientific arrangements. — MRS. TUCKFIELD.

20. *Of Systems of Preaching.*

The writer of the present Account would wish most anxiously to guard his readers against the erroneous notion, that the success of any seminary can ever depend entirely, or even principally, upon its *machinery* (so to speak), or external system of arrangement. That no school can ever be well conducted without due attention to order and method, every one in the slightest degree acquainted with the subject will readily admit ; and the gratitude both of the present and of future ages is therefore most justly due, for the facilities which the systems of Bell and Lancaster have, in this department, contributed to the cause of general education. Every judicious conductor of an establishment for education, accordingly, will be at the utmost pains to render his system in this respect as perfect as he can. But, when this is done, he will keep in remembrance that the weightier matters remain behind. He will consider, that it is not upon the nature of the scaffolding, or building apparatus, however skilfully devised and admirably adapted to its own purpose, that the beauty, or

usefulness, or stability of the future fabric is to depend ; nor will he suffer himself to forget how often it has happened that, on the removal of the scaffolding, some deformity or flaw in the structure itself has been disclosed, which the apparatus had hitherto concealed from the eye of the spectator. From inattention to this fundamentally important truth, how large a proportion, unfortunately, of the schools instituted even upon the most justly celebrated systems have been allowed to become little better than mere pieces of mechanism, pretty enough, indeed, in external appearance, but comparatively of little use ; in which the puppets strut with wondrous regularity and order, and with all that outward "pomp and circumstance," which are well calculated to catch a superficial observer, but in which all the while the mind is but little exerted, and of course little, if at all, improved.

Nor let it be imagined, that the scheme adopted in the Sessional School may not be liable, as well as other systems, to have its injudicious admirers and imitators. Struck with the alleged success of the system as there exhibited, one may investigate every its minutest detail with no less punctilious care than that of the poor savage who, restored on one occasion to health by the administration of a particular drug, ever afterwards fondly treasures up in his memory, with a view to the recurrence of a similar exigency, the recollection of the day of the moon,

the hour of the day, the posture of his own body at the time of his receiving the medicine, and every other little adventitious concomitant of his cure. The copyist may introduce precisely the same number and the same size of classes, may place the master, the monitors, and the scholars, in the same respective positions,—may prescribe to them the same movements,—may put the same books into their hands,—and, in short, may give the whole the self-same external aspect,—but if he be not at least equally desirous to catch the *spirit*, as to imitate the *forms*—to keep steadily in view the ends, which it is the legitimate object of education to attain, as well as the steps, which, under proper guidance, may facilitate their attainment,—if he imagine that any artificial contrivance whatever can, in the slightest degree, supersede the necessity of diligence and zeal, of earnestness and kindliness of manner, on the part of the instructor,—if he treat his pupils more as mechanical than as intellectual beings, attempting rather to cram into them a certain definite quantity of instruction, than to inspire them with the taste, and furnish them with the power, of acquiring knowledge for themselves,—if he content himself with teaching them to repeat by rote, with slavish precision, rules of which they are left alike ignorant of the principle and of the application, or to pronounce with formal tone, and measured cadence and inflection, a mere jargon of sounds, to which they

have never learned to attach the slightest signification,—let him not wonder if, notwithstanding all the pains which he has bestowed on the externals of his system, it should degenerate into as dull, cold, and lifeless a *routine*, as is exhibited in any of the most unproductive seminaries around him.

It is no less necessary, on the other hand, to guard against the opposite error of imagining, that because the externals may subsist where the spirit is wanting, the former, in place of being rendered subservient to the latter, should be laid aside altogether, as utterly unavailing. It may be very true, that neither the monitors and other arrangements of Bell and Lancaster for facilitating mutual instruction, and maintaining order and constant activity, nor the places and prizes, and other incitements to emulation, which have so long held their place in almost every approved system of education, can of themselves ensure success to any seminary. But it is much to be doubted, whether the Sessional School would ever have attained its present character, if its directors had either neglected those modern arrangements as useless innovations, or abolished these incitements in order to make way for the operation of a purer love of excellence, or still purer love of knowledge, or love of duty superior to either.—
Wood : Account of the Edinburgh Sessional School.

21. *Of Catechising.*

Of all the methods of instructing the young in religious knowledge (and perhaps we may add in every other species of knowledge), CATECHISING appears to us to be at once by far the most interesting and the most profitable. By this, however, we trust we shall be understood as recommending something more than merely reading, from a book denominated a catechism, a certain number of prescribed questions, and hearing the child repeat by rote the words, which are set down for him, in the same book, as answers to these questions. We here employ the term in its more comprehensive signification, "to instruct, by asking questions, and correcting the answers." (JOHNSON.) At the same time we are far from asserting, that *a form of sound words*, drawn up on the principle to which we have referred, when rightly employed, and holding only its proper place in religious education, is by any means without its use. On the contrary, we think it wise in every church to have formularies of its own of this description, to serve both as text-books and standards for its young members; as TEXT-BOOKS, to secure their attention being called to those fundamental truths without which Christianity might be reduced to a meagre and lifeless system of ethics; as STANDARDS, to guard their minds as much as pos-

sible from error of opinion, with regard to these essential points.

It may be asked, "What is meant by making a child *understand* the truths of religion? Hath not an apostle acknowledged, that *great is the mystery of godliness*; and what he found to be mystery shall we pretend to make plain even to the conceptions of children?" Such questions we admit to be at once pertinent and highly important. In order to answer them, it will be necessary to keep in recollection that there are more senses than one in which we may be said to understand a thing. We are said, for example, to understand the narrative of any remarkable phenomenon, when we have received a just conception of the appearances described, though neither ourselves nor the narrator have the slightest notion of the cause of these appearances. A physician is said to understand his profession when he knows the circumstances under which certain remedies ought to be applied, in order to effect a cure, and the method of their application, though he may not in many cases be able to account for the mode of their operation. We may, in short, perfectly understand a thing, in so far as we have any concern in it, while, in other respects, it is itself involved in obscurity. This is a distinction which cannot be too much attended to in the religious instruction of children, and, we might also add, of those of riper years; for all in this imperfect state are at best but

grown children. We ought ever to remember that, in the department of religion, no less than of nature, *there are secret things that belong unto the Lord our God*, as well as *things which are revealed, that belong unto us and our children for ever*. Thus we are bound to make those intrusted to our care understand, *as a revealed truth*, that by the death of Christ pardon has been secured to sinners, and to point out to them the authority upon which we make this statement—to shew them no less clearly, by the same authority, that in the benefits of His death no *impenitent* sinner can ever have the slightest hope to participate—and to render them well acquainted with the appointed means by which these benefits may be made available to themselves. But it is quite unnecessary, and would indeed be highly improper, to perplex their minds with any subtle and idle inquiries about *the method* in which this sacrifice, so clearly revealed, can operate for salvation. Such discussions, we are decidedly of opinion, ought never to be heard in their presence.—Wood.

22. *Of the Edinburgh Sessional School.*

The children in the Sessional School are all under the tuition of one master, who conducts the school on the monitorial system of mutual instruction. The external details are, we believe, in most leading points, nearly the same with those which are in use

in the national schools in England. But the directors have never had any hesitation in deviating from these, when others appeared in any respect better adapted to their own purpose. Such deviations, we are well aware, have sometimes been regarded with other feelings than those of approbation. But if, in the quarter to which we allude, it had been deemed of the slightest consequence to go beyond the externals, and to vouchsafe one look at those weightier matters, which have ever occupied the greater share of attention with the conductors of this Institution, it is not unlikely (according to every information which we have received) that a much greater difference might have been discovered than in mere points of external form.

The tables (as in the Madras or National school system) are placed round the walls of the school-room, and the remainder of the floor is left quite unoccupied by furniture, except the master's desk, and such seats as may be necessary for the use of visitors. One half of the scholars always sit at the desks with their faces to the wall, employed in learning to write or cipher, while the other half stand on the floor, either reading, or practising the rules of arithmetic. Thus, it will be observed, seats are required only for one half of the scholars, and convenient accommodation is afforded to a far greater number than could be obtained under any other arrangement. The classes on the floor are ranged in

segments of circles behind each other, fronting the master's desk, which is at the head of the room ; and in front of each class are placed the teaching monitor and his Assistant, whose duty is to preserve order and attention.

At five minutes before ten every morning (except Sunday) the school bell is rung, the monitors or assistants having previously arranged the books and slates, and prepared the pencils for their respective classes. Every boy enters with his hat slung round his neck. The elder division of the school take their places for reading on the floor, and the other division stand beside their seats with their faces from the wall. Precisely at the hour of ten in the school-clock the doors are closed for prayer, which is offered up by the master. That duty having been performed, the words of command are successively given, "recover slates," "sling slates," "recover books," "give pencils," "second division, seats." The classes of the elder division then proceed to read, spell, explain, or learn grammar, &c., under their respective monitors, while the children of the second division write or cipher until half-past ten. At that time the first division are marched to their seats, and the second division occupy their places on the floor, an evolution which is performed in about a minute and a half. The second division then proceed to read or spell, and the first to write, till 11 o'clock, when another shift takes place. From 11 till 12, the first division

practise arithmetic on the floor, while the second write at the tables. At 12, the scholars are marched out in a double row, the division on the floor and that at the seats moving out together at the same time. After a short interval, an extra lesson is given to the monitors, assistants, and higher scholars, till five minutes before 1. At that time the classes return and resume their places, the higher division on the floor, the second beside the seats. Precisely at one, the necessary orders are given for slates, books, pencils, and seats. The first division read, &c., and the second write, till 2 o'clock. The books are then grounded; the second division rise; and a roll is called by each monitor of the names of the boys in his class, and opposite to every boy's name is entered in the register the place he holds, unless in the case of absence, which is denoted by the letter *a* being placed opposite to his name. This operation being completed, which is done in less than three minutes, the divisions are shifted. The second division read &c. on the floor, and the first division write at the tables, till 3. At that hour, after the necessary orders, the head monitor says the Lord's Prayer, which is repeated along with him reverently, and in a low tone of voice, by the whole of the scholars. The school is then dismissed for the day. On Saturday, the roll is called at half-past 10, the Lord's Prayer is said at 12, and the school then dismissed, except the moni-

great and only object of their emulation, and according to that, and that alone, are the monitor prizes awarded.

This method of teaching a school through the medium of the scholars themselves, highly important as it is in the conduct of education, especially upon a large scale, is well known to be only of modern invention. In every age, indeed, there have perhaps been instances of elder children occasionally instructing the younger in matters which they had themselves been previously taught. But for Dr Bell, towards the close of the eighteenth century, was reserved the honour of being the first to reduce this method into a regular system, to exemplify that system in his own practice, and to recommend it to the notice of the world.

The monitorial system is certainly of greatest service, and is indeed absolutely essential, in those large establishments where it becomes necessary to put some hundreds of children under the superintendence of one master. If all of these should remain unemployed until it came to their own turn, or even to the turn of their own class, to repeat a lesson, it is obvious what a miserable waste of time must be the necessary consequence; whereas, according to this system, when rightly conducted, all are incessantly busy, and not a single moment is lost by any one individual. To say that a boy makes a better teacher than a man would be manifestly absurd.

At the same time, we have no hesitation in giving it as our opinion that, in *some* respects, independently of the question of expense, the monitorial system has decided advantages over any which could be conducted by the same number of adult ushers, especially where these have not all been previously trained to the system which they are to teach. In the first place, the young monitors are more pliant and flexible, and thus more easily moulded by the master to his own views ; so that he can at all times maintain, throughout the whole even of the most extensive seminary, nearly as perfect a unity of system, and as nice an accommodation of each class to the others, as if he himself were every moment personally occupied in each, and continually conducted the education of every individual scholar from its commencement to its close. Every the slightest instance, too, of neglect or deviation from instructions can be noticed and censured in the case of the monitor with the most perfect freedom ; and wherever he is on any account found not to answer the purpose for which he was taken on trial, he may in a moment be removed to another department, or even altogether from the situation of monitor, without exciting any stir, or, perhaps, the slightest feeling of affront. But where each class is put under the management of an usher the very opposite of all this takes place. He is disposed much more to follow his own inclination ; he cannot be censured

with the same freedom, nor be so easily removed ; nor, if he were removed, could his place be so readily supplied. Hence the unity of system is in a great measure destroyed, the progress of each class will in a much greater degree depend on the qualifications of its respective teacher, and the success of the school as a whole will rest much more on their joint qualifications, and be less ensured by the appointment of one able master, than when it is placed under the tuition of monitors.

In the second place, the monitors are, in general, especially in minor matters, (by which we mean those that are too generally accounted such,) more active and alert than ushers, make much better *fags*, and, as has often been observed, take a pleasure and a pride in performing duties, which the others are too apt to regard as an excessive bore and a degradation.* Nothing in the Sessional School has more astonished a stranger than the zeal, the alertness, the pains, and, we may add, the ability, displayed by the monitors. No stronger proof, indeed, can be given of their teaching qualifications than the eagerness with which they are laid hold of by parents in the higher walks of life for the domestic education of their own families. Their very age, if it is in

* "How can any one expect us to do the drudgery of these boys?" is an unintentional compliment which we believe has not unfrequently been paid to the monitorial system by some of its strongest opponents.

some respects undoubtedly a disadvantage, is in others an advantage for this purpose. They, on the one hand, can more easily sympathize with the difficulties of their pupil ; while he, on the other hand, with a greater prospect of success, strives to emulate his young teacher.

Every monitor in the Sessional School is provided with an ASSISTANT, whose duty it is to preserve order and attention in the class, while he himself is occupied in teaching. The advantage of such an officer must be sufficiently obvious. In some schools, excellent in every other respect, a practice prevails, which in our opinion cannot be too much condemned, of encouraging the children to become general informers against each other, and giving them an interest in doing so by putting the informer in the delinquent's place, if the latter be previously superior in the class. This mode of informing is never practised in the Sessional School except by a novice, and from the reception which it encounters, not merely from the master, but from his fellow scholars, who never fail to banish their officious companion from their company for a season, is in no great danger of being repeated. But the *assistant* who, in giving information, does no more than his duty, secures the approbation alike of his teacher and his fellows. It is, accordingly, no unusual thing to see a boy playing at the door of the school with the individual who, the very moment before, had, in dis-

charge of duty, been the occasion of his censure and punishment.

It is the duty of the monitors and their assistants to take charge of the books, slates, pencils, &c., their respective classes, all of which are the common property of the school, and are never allowed to be carried out of it. It also lies with the monitors to keep the registers of attendance of their respective classes. It is easy to conceive how well calculated such practices are to teach them habits of regular order, and business.

We are not unaware of the prejudices that exist in the minds of parents on the subject of the monitorial system, and are clearly of opinion that, like other prejudices, these should be tenderly handled. It will not do for the master or directors who introduce this system to assume a high tone, and to say that *they know* that its introduction is for the good of the school, and that this is enough. They must be at pains to make those who are interested know it also. *At first* we think they should only employ boys in what we have termed hearing of tasks, such as spelling and the like, and in no other species of teaching. Till the monitors, indeed, be themselves properly trained, they cannot with advantage be employed to any other purpose. And care should be particularly taken to shew the parents that the master labours among all their children as assiduously as before; that they are employed in

mutual instruction of each other only at those intervals when they would otherwise have been idle ; and that much saving of time is thus obtained. We would again warn our readers against the erroneous supposition that the monitorial system, great as its advantages are, is calculated to do everything, and remind them that it is not to this system alone the Sessional School owes its present reputation, but to the activity of its teachers, and the pains which have been bestowed in rendering the education of the pupils rational and substantial.—Wood.

24. *Of Intellectual Education in Infant Schools.*

If children be checked in their inquiries and observations, if their little questions are thought troublesome, or met with indifference, they learn to content themselves with incorrect ideas and vague impressions—they see as though they saw not. It is the business of early education to prevent such results, and to take care that the senses perform their appointed task of producing correct impressions of the outer world on the mind of the child ; for almost in proportion as the senses convey clear, distinct, and right ideas, in after-life will the judgment be sound, and the memory accurate. We are to commence by cultivating the different senses of the infant, through the means of real tangible objects. Thus let the sight be trained to determine colour, size, form, distance, number ; let the ear be

exercised in different kinds of sounds, and their degrees of intensity, in determining various substances by the sounds they produce. In like manner, let the other senses be brought into activity by presenting them with appropriate objects. The judgments of the children must be subsequently corrected by appeals to their senses, and they must learn to express accurately what they have observed correctly. Here is the great business of infant education, and so far the rich and the poor require to be treated alike ; a correct acquaintance with the world they live in is equally essential to both, and whilst such training will form the useful mechanic and the observant labourer, it will no less prove the basis of scientific research and philosophical reasoning in those whose subsequent education is directed to such pursuits. Infant School teachers should always bear in mind, that with respect to intellectual culture, their one great object must be *to exercise and to improve the senses.*

To attain this end, lessons on objects should form a prominent feature in all Infant Schools ; at first the selection might be miscellaneous, but in every lesson the teacher should have some definite aim.

In commencing a course of lessons on objects, the first substance chosen should be one in which some quality exists in a striking degree ; the cause, it may be, of its usefulness, — as in glass, transparency ; or in sugar, sweetness. Care should be taken, in the

course of a few days, to present a different object in which the same quality is obvious, that the abstract idea may be formed. In this way a series of objects should be brought before the children, for the purpose of making them acquainted with all the several qualities cognizable by their external senses. This plan has been adopted in the first series of Lessons on Objects ;” and might be carried out to greater extent ; but teachers should endeavour to understand the principle upon which these, any other model lessons are formed, otherwise they will be continually making mistakes in the application of them, and be unable to carry them out with effect.

Much interest would be excited, if little collections of natural and artificial objects were to be made in every Infant School ; a few specimens of foreign productions in common use, or of such as are mentioned in scripture might be purchased, and for the remainder, the children might be encouraged to bring objects for their lessons ; this would lead them to take an interest in the productions of their own neighbourhood, and to search for information respecting them. If the locality be the seashore, they would find shells, pebbles, sea-weed, shell-fish, &c. If a manufacturing town, the articles made there, and the raw material, would be easily procured. Every place, in fact, presents objects of interest to the inquiring mind ; but we are too apt

to pass over what we commonly see, not allowing our attention to be sufficiently arrested for the mind to obtain clear impressions.*

Colour soon attracts the observation of children, and a series of very interesting lessons might be formed upon this subject. A colour should be exhibited to the children, and when the idea of it is formed in their minds, they should be taught to connect with it the right name. The next step should be to call upon them to mention what they see before them of that particular colour, so that


* "For want of such habits being formed in early life, the bulk of mankind know neither the proper use of their sensitive organs, nor are qualified to deduce proper conclusions from the objects to which they are occasionally directed; but pass through life without any rational application of the sense and faculties with which they are furnished. Is there one out of ten that has ascertained from his own observation, that the starry heavens perform an apparent revolution round the earth every twenty-four hours, around a certain fixed point called a Pole? Is there one out of twenty that can tell at what season of the year the new moon will appear at a high elevation above the horizon, and when the full moon will appear high or low? And yet these facts may be ascertained without the least difficulty, by a simple application of the organ of vision to the respective objects, combined with desire to know the results. The same position might be illustrated in thousands of similar instances, where the gross ignorance prevails in relation to multitudes, which might have been prevented by a rational use of the sensitive organs with which the Creator has endowed us. Now in Infant School children should be trained to a proper application of their sensitive powers, presented with suitable objects, on which they may be exercised, and taught to deduce from them useful truths with their practical application."

their sight may be well exercised in discriminating the one learned from others ; afterwards, they should be required to name objects, from recollection of the colour in question—this will tend to form the abstract idea, and will also furnish the teacher with an opportunity of cultivating accuracy of observation and propriety of expression. For example: Ask them to think of something *red*;—they will perhaps mention the robin red-breast. Ask them, “Is that quite correct?—is the robin red all over?” “No; it has a red breast.” “Then what should you have said?” “The robin has a red breast.” Again, “Tell me something that is green.” “Leaves are green.” “Are they always green?” “No.” “When are they green?” “In Spring.” “Then what should you have said?” “Leaves are green in Spring.” Such exercises would lead them to think before they speak, and to express themselves with accuracy and in strict adherence to truth, whilst they may be made highly interesting. For commencing lessons on colour, a few wafers on a card will be sufficient, one being added when a new colour is brought before the children. But they might also be practised in learning the various shades of colour, and their degrees of intensity, for which purpose colours may be painted on slips of card, and kept as standards to be referred to. At the same time the proper names for each should be learned, as apple-green, grass-green, chocolate-brown, &c. Whenever they

receive a lesson upon a flower, or a stone, or any other coloured object, they should be called upon to determine its precise hue. A cake of each of the primitive colours—red, blue, and yellow—might be kept in the school, and it should be made evident to the children how all other colours may be produced by their combination in different proportions. It is not sufficient that they are simply shewn two colours, and then told what they will produce if mixed together. This kind of instruction is of little or no value, for the knowledge of the fact, even if remembered, is but of minor importance to the children ; it is having had their powers of observation called out, and exercised, which constitutes the real value of the lesson ; and this is a point but too little understood by teachers.

Exercises on colour greatly interest children, and improve their organs of vision, whilst in after life they are often placed in situations where the accurate perception of colour is of great advantage. How useful is it to the painter, the gardener, the haberdasher ; how convenient that servants should be able to match colours well ; and let us not confine our view to selfish considerations merely—is it nothing to have increased the sphere of innocent gratification to our fellow-creatures ; to have administered to their pleasure by making them more alive to the ever-varying hues in which Nature is dressed ?

Form is one of the most striking properties of matter. Regular lessons ought to be given on this subject, but in doing so the object should not be to teach the science, or even the technicalities, of geometry, but simply to improve in the children the faculty for perceiving elementary forms, and, it may be, afterwards to practise their hands in imitating them. There can be no doubt as to the utility of such instruction, if we only consider that in the humbler walks of life there is scarcely any vocation in which a knowledge of form is not a most useful, if not an indispensable acquirement. The plan pursued in leading to the observation of the other qualities of matter, should be adopted. Form should be studied where it really exists, in the bodies themselves: but as in nature it is in general complicated, it is best that the children should in the first instance be practised upon some simple, regular solids, made either of chalk or wood. A solid being presented for their inspection, according to the plan suggested in the lessons on colours, they should be required to look around, and point out where they see anything of a similar shape, then to name a similar shape from recollection. In succeeding lessons they may be exercised in discovering and describing the peculiar shapes of the different solids, leading them to an acquaintance with the boundaries, as surfaces, edges, angles, &c. Afterwards, they may be shewn their representations in figures,



and learn the different properties of lines and angles; they may then be called upon to discover what they can do with one line—as lengthen it at either both ends, shorten it, efface it; how they can place two lines with respect to each other; they may be parallel, they may converge, cross, &c. Their observation of relative position should be directed to what is within their view; indeed, as much as possible, all their knowledge should be made practical, and to bear on the scenes and objects which they are surrounded; thus they should be led to remark the position of the walls of the school-room, with respect to the floor, the floor with respect to the ceiling, &c., and also the relative position of the different parts of their own bodies.

Another useful exercise is to accustom children to determine the sizes of things; teach them the length of an inch, a foot, a yard; frequently measure things before them, until they have a tolerably accurate idea of their lengths; then call for their opinion of the length and height of an object, beginning with small things; and in order that they may be able to correct their judgment, measure before them, allow them to measure, whatever they have to give their opinion upon. In addition to the absolute dimensions of surrounding objects, they may also be exercised in determining their *relative proportions*; thus, what proportion our nails bear to

fingers—our fingers to our arms—the windows and doors to the height of the room, &c.

Amongst the elder pupils, a little drawing with chalk might be advantageously introduced, teaching them to make straight lines in different directions, angles of different sizes, and connecting them, so as to form different figures, the eye having been previously well exercised in determining absolute and relative dimensions.

The want of arrangement and system in these lessons, as well as in others given in Infant Schools, has been a great error ; each lesson stands insulated, the whole instruction resembling a piece of patch-work. The consequence of this defective mode of teaching is, that the children do not enjoy the satisfaction of feeling that they are making progress, and the knowledge or power they gain not being quickly followed up and strengthened, fades away and is lost ; whereas if a regular and graduated course were adopted, the materials would be rightly placed in the mind, and they would also be trained to enjoy order and arrangement.


Lessons upon *arithmetic* should begin with visible objects, that through the medium of their senses children may obtain accurate ideas of number before they attempt their combinations. To facilitate this, the frame of balls, called the Arithmometer, is very useful ; it presents the children with a visible representation of number, and enables them to com-

pare and combine for themselves. When they have acquired the knowledge and names of numbers, they must be taught to apply them to all they see around, and find examples in their own persons or in the room. They should next be exercised in mental arithmetic, using the arithmometer to correct any error they may make, or to help them through any difficult solution. Every step should be made clear to the children by this instrument, whilst the results of the arithmetical combinations which they make should be fixed in their memories by repetition and continual questions.

Since children must hear the names of different countries, and in their Bibles read much of other lands, it is very desirable that these names should call up in their minds some definite ideas. How is this to be accomplished? A map, as it is generally used, altogether fails to convey to infant minds what it is intended to represent. The first questions which the teacher should ask himself are—What ideas have the class received?—what do they know?—what have they already comprehended at all like what I wish them to know and comprehend? What, for example, does the class know of *place*, that may be regarded as a foundation on which to rest further knowledge of *place*? They know that part of the earth on which they live, and the school-room in which they are receiving daily instruction. Here, then, is the point from which to start. After having taught them to determine the cardinal points, which

is easily effected by leading them to observe where the sun rises and where it sets, and pointing out to them that that part of the heavens where they first see the sun in the morning is called the east, and that part where they lose sight of it in the evening the west ; and that if they stand with their right hand to the east, the north will be opposite to them and the south behind them. A few little conversational exercises, requiring them to mention what things they can see on the north, what on the south, &c., will fix this preliminary step in their minds. Then propose to draw a map or plan of what they are all acquainted with, the school and its immediate vicinity. As they know the cardinal points on the horizon, you must shew them where they are represented on a map ; and if you only tell them that the east is always placed on the right hand side, they will be able, from their previous lesson, to find out the other points. Put a mark in the centre of the slate for the school ; then ask, " What is to the north of the school-room ? " " The street. " " Where, then, must I make a mark for the street ? " " At the top. " " What is to the south of the school-room ? " " The play-ground. " " Where is it to be placed on the map ? " " At the bottom. " &c. At the next lesson, or very shortly, the geographical sphere may be extended to the neighbourhood, as the church, the workhouse, &c., determining their distances from each other and relative position, marking them down

accordingly. The next lesson may embrace the neighbouring villages, the course of some river, hills, or whatever the locality may present. Thus the children would see on the slate something like a picture of their neighbourhood, and be prepared to form a conception of the real nature and use of a map, and to derive information from the sight of one representing countries unknown to them ; in this manner, according to the excellent rule of the venerable Pestalozzi, they are “led from the known to the unknown,”—the first stepping-stone being the child’s own experience. Having proceeded thus far, you must not afterwards let the geographical lessons consist of a list of names, the capital towns of countries of which they have no distinct idea, but lead the children to feel an interest in the place, before they learn where it is situated. Suppose you design to give them a little instruction about their own country ; bring before them a skeleton map, and fill it up as they become interested in the different towns or places, first marking on the map the spot where they reside. For instance, have they had a lesson on cotton, learned something about it in its natural state, and heard that cotton goods, the frocks they wear, are manufactured at Manchester ? They associate a definite idea with this town, and will be pleased to see where it is to be put on the map, and what is its relative position with regard to the place where they reside. In this manner they may be-



acquainted with their own country, and not its remarkable towns only, but with its natural productions, such as coal fields, salt mines, iron &c. Propose to them, as they advance, to take little imaginary tours, and to tell you what they would pass through in going; for example, from London to Liverpool; what rivers they cross, what natural productions in particular they would see. The map of Palestine might, in a similar manner, be filled up as they hear about the different places mentioned in Scripture; and the general nature of that country might be described to them, to illustrate the histories of the Bible. A map should also be introduced to the children's view, that they may form a right idea of the position and size of our island, and learn something of the countries that supply us with our different comforts. It would be also desirable to direct them in the spread of Christianity, and to point out the lands that yet sit in darkness and in the shadow of death, endeavouring to awaken in them an interest in missionary labours, by giving them such details as would lead to a due appreciation of the blessings they enjoy, and a sympathy in the wants of heathen countries. The geography of animals would likewise be interesting, as it presents facts strikingly illustrative of that gracious providence which alloweth not a sparrow to descend without being directed to the ground. Where do we find the

elephant, an animal capable of consuming from 150 to 200lbs. of food in a day? In countries redundant with vegetation. Where the carnivorous lion and tiger? In countries unfit for man's residence, in almost impassable jungles, and beneath the heat of tropical suns. Where the faithful dog, the friend of man? In every clime; for he possesses, like many other of our valuable domestic animals, a constitution that becomes naturalized wherever he is carried.

Still more interesting and important than the knowledge of the relative position of the places of the earth, is an acquaintance with its productions. In this study, children should be led to distinguish the three great kingdoms of nature. Each of these should form materials for a different course of lessons. By all means avoid the affectation of treating them scientifically; little children have nothing to do with science, and it has been a great mistake to talk of teaching them botany, mineralogy, zoology, &c. An acquaintance with useful facts is valuable to all ages and all ranks; but science belongs only to those whose reasoning powers have been developed. Whilst therefore a lesson on a flower, an insect, or a mineral in common use, may most profitably exercise the perceptive faculties of children, train them to habitual observation, and lead them to admire the wisdom and the goodness that formed them, let not such simple instruction draw down ridicule by giving it the name of a science.

Lessons on natural objects should commence with what is in immediate contact with the children, with that which they themselves observe; and when it is wished to extend their knowledge, it will be found that if they have been accustomed to make accurate observations, and to give correct descriptions of what they have seen, they will be prepared to understand the accounts of foreign productions, if only told how far they differ from, and how far they resemble, those of which they have formed clear and distinct ideas.

On this principle you cannot do better in commencing your *instruction on animals* than to direct the attention of the children to their own figure,—and when they have become well acquainted with their organs, as to their form, position, and uses, lead them to compare their own organs with the organs of other animals, to observe the difference in structure, to consider why they are so differently constructed, that they may perceive how every animal is furnished by his Creator with just what he needs. In fact, accustom them always to expect that there must be a wise and benevolent reason for every variation they find. Their curiosity will thus be excited, when they perceive any peculiarity in an animal, to know for what purpose it is designed.—Let them, whenever it is possible, find this out for themselves. As an example of such instruction, suppose the lesson is on the human nose; having required them to consider its parts—the bridge, nos-

trils, tip, sides, wings, &c.; next, its position—in the centre of the face, below the forehead, above the mouth, between the cheeks; then its form; lead them next to compare it with the same organ in other animals. Take, first, one familiar to them. What is this organ in a pig? A snout. What sort of snout? Long. What has it at the end? If they cannot answer this question, stimulate them to make the discovery, and defer the continuation of the lesson till the next day, when, most likely, several will have found out that the pig's snout terminates in a ring of gristle. Next should follow the consideration of the use made of this organ by man and by pigs, and its fitness for their different habits. What is the use of your nose to you? What do you do with it? Breathe through it, and smell with it. What must you do when you wish to smell any thing? Bring it to the nose. How? By the hand; leading them to perceive the necessity of hands to man from his erect position. But of what use is the pig's snout? He breathes with it. What besides? He grubs up his food, roots, &c. How is it fitted for this work? It is long, flexible,* and has a ring of gristle at the end. They may then be led to consider the extraordinary adaptation of this organ to a very different state of circumstances in a foreign

* It is supposed that Lessons on Objects will precede those on Natural History, and consequently that the children will be familiar with the quality of flexibility.

animal, which probably they all have seen, at least in a picture. What is this organ in an elephant? A trunk.—What kind of thing is the trunk? It is a very long, flexible snout. They will not perhaps know to what use the elephant applies his trunk, but by questioning may be brought to know that he has the power of raising it in the air, curling it about the branches of the trees, and snapping them off; that he also twists it round the herbage on the ground, tears it up, and then conveys, with the aid of this instrument, the vegetable food to his mouth. If it be absolutely necessary to describe to them the habits of an animal, they can still be left to make the application of the information given, and find out how the organ and the peculiar habits are adapted to each other. You may also proceed a step further, and draw from them the conclusion that He who made these animals, appointed the bounds of their habitation, implanted their instincts, and gave them organs in accordance with them, must be as benevolent as He is powerful. If by such exercises children are trained to observe attentively and accurately, and then to reason upon the knowledge acquired, their minds are really educated. It will, no doubt, have cost considerable thought and trouble. A teacher might in the same space of time have told them a great deal, and perhaps have made them *appear* much more clever, but information received with little exercise of the mind soon fades

away; whereas habits formed and power acquired are permanent. In training them to think justly, you also do much towards furnishing them with a preservative against error; for though you may not have exercised them on any very important matters, yet with minds early accustomed to form a right judgment, and to reason correctly on one subject, they will be prepared to do so on another; and will more easily detect the fallacy of the infidel opinions and demoralizing views, which are now continually brought before the poorer, as well as the richer classes of society.

In your regular course of lessons on animals, you should begin with those common ones which are seen every day. What better subject than the domestic cat, the type or representative of that fearful race, the feline tribe? Lead the children to observe the sharp-pointed teeth, the curiously formed eye, the long whiskers, the soft-cushioned paws, armed with retractile claws, the slender flexible body. Bring to their recollection its peculiar movements, its cautious, stealthy walk, when approaching its prey; its sudden leap, its elasticity and power of adjusting its body, when descending from the height, so as to alight upon its soft-cushioned paws, and give its frame no jar; its food, animals, which it tears with its sharp teeth, and still further masticates with its rough tongue; its claws carefully sheathed when at play with its kittens, but proving a sharp instru-

ment when protruded to strike its poor little victims. All these traits are also characteristics of the tiger and its cogeners; and a lesson on a cat, which children can examine themselves, will prepare them readily, with the help of pictures, to form a clear idea of the scourge of the jungle, and they will listen with increased interest to any anecdotes, illustrative of its habits and character.

Lessons on plants should always be carried on in the summer months, when all the parts of a plant may be seen, and the children should be encouraged to bring specimens. When you propose to give them a lesson, begin with the root; ask them to bring all the different kinds of roots they can collect: make them find out the different parts of a root,—its use to the plant; lead them to observe, and describe the forms of the different roots which they have brought, and require them to give you a list of those that are eaten; then shew them how the wonderful providence of God is displayed in the root, as in every other part of the vegetable; how beautifully it is formed to preserve the plant in its right position, throwing out longer fibres, as the head increases in dimensions, and so acting as a counterpoise to the weight of the top; how admirable the compensation made to plants for their inability to move about, by giving them many mouths, while animals endowed with the power of locomotion, have only one: and how beautiful the provision that these

vegetable mouths, which are sponge-like substances, fitted to absorb moisture, are placed at the extremities of fibres, that are always pressing out in every direction beyond the shelter of the foliage of the plant, to reach the moisture not found under it. The knowledge of such facts, shewing the good providence of the Creator extended to all His works, and proving that every part of nature bears the impress of divine wisdom, are within the reach of all who will exercise a little observation.

The minerals in common use, as coal, salt, chalk, and the metals, should be occasionally the subjects of lessons ; and the children should be particularly led to feel an interest in what their own locality affords,

It would be as well, perhaps, for the child, if learning to *read* were not attempted in Infant Schools ; yet, as the parents in general appreciate very little the development of the intellectual powers, or the formation of moral and religious principles, but look rather to some positive tangible acquirement, it may be desirable to meet their feelings : a still more cogent reason for teaching to read so early is, that in many instances a child has no other instruction than that which he receives at an Infant School. The great object should be to adopt some method that will smooth difficulties, and render the task as little wearisome as possible. In the plans of teaching to read, generally pursued, all is arbitrary and uncon-

genial to the tastes of children. It is indeed true, that the symbols chosen to represent sounds, must of necessity in the first instance be arbitrary; but then their combinations need not be so. Thus, according to the usual mode of teaching, a child first learns the * names of the letters; this helps him but little, for when in the next step he is called upon to put them together, the syllable they are to form, is not really the sound produced by their combination, so that this process is also arbitrary; he receives on the authority of the teacher, that such letters form such a word, and this is to be committed to memory. Thus he says, d-o-g, and then is told, that these letters spell dog. On the plan we would recommend, the child should be taught the power of the letters, (that is, the sound that they have, when combined) and the syllabic terminations.† A child instructed on this plan, when he sees the letter d, calls it according to the French, de, and having learnt the termination og, when he is directed to put the two

* As it is usually managed, it is a dreadful task indeed to learn, and, if possible, a more dreadful task to teach to read: with the help of counters, and coaxing and ginger-bread, or by dint of reiterated pain and terror, the names of the four and twenty letters are in the course of some weeks firmly fixed in the pupil's memory. So much the worse; all these names will disturb him if he have common sense, and at every step must stop his progress.—*Miss Edgeworth's Practical Education.*

† This plan is followed in the Model Infant School Gray's-Inn Road, and the lessons used are called "Reading disentangled."

sounds together, will of course say, dog. He is pleased to find, that by combining two sounds, he has himself formed a word with which he is familiar. Language is thus reduced to its simple elements, the child is first made acquainted with the symbols of its primitive sounds, and when he combines them, which he finds no difficulty in doing, he enjoys a real pleasure, he has done something that he feels is correct, and there is a satisfaction in the act. It is not an unimportant consideration, that teaching to read upon these principles, corrects the ear in its judgment of sound. The first reading lessons should be as simple as the children's conversation, and no attempt made to communicate knowledge by reading, until they have acquired some facility in the art.

With respect to *grammar*, it does not appear at all a subject for Infant Schools, it is too abstract a science for early instruction ; and if the children learn it, they only do so as parrots, a custom very much to be deprecated : it is of no benefit to their minds, and enables them to make a display very detrimental to their moral character. It would, however, be very desirable, if the teachers studied it themselves, and were enabled to correct the grammatical errors of their pupils, and also their wrong pronunciation of words.

The elliptical mode of teaching, which requires the children to fill up any important word in a sentence, has been much adopted in some Infant Schools ; its

principal advantages are, that it enables an instructor to lead his pupils along a simple train of reasoning, and to arrest their attention and carry them with him through a narrative ; and also by obliging them to seek for the appropriate expression they have to supply, it helps them to acquire a rich vocabulary, and to obtain fluency and readiness in expressing themselves. But teachers should recollect that they will not by such a mode of instruction train a child to think or reflect : what he ought to say is suggested to him, and after a little practice a very superficial attention will enable him to guess a word which the tenour of the sentence points out. One way in which it may be very profitably used, is when a teacher is summing up a lesson : he can then go over the ground again, and gather up what has been elicited on the subject ; leaving the school simultaneously to supply what they have learnt, which he suggests in proper order, and without the collateral subjects which may have been introduced by way of illustration.

Before leaving the subject of intellectual education, it will perhaps be desirable to meet the objections of some, who may be inclined to ask, Of what advantage is so much knowledge ? We answer, It is neither the variety of knowledge, nor the quantity of information gained, that is the object ; this can at best be but a very minor consideration in an Infant School ; it is the power of perception, correctness of judgment, the general intelligence, acquired by such

training, that is really valuable. How much is a workman of observation and ingenuity prized ; one who can follow out an idea given, who has mind to comprehend suggestions, and ability to carry them into practice. How superior is the domestic servant, who does not like a slave merely obey your orders, but can enter into the spirit of the directions given, and meet promptly any change of circumstances,—one with whom you can trust your children, without fear of injury either to their morals or manners, who having a mind well stored with the narratives of Scripture, and with facts in natural history, illustrative of the goodness and wisdom of the Creator, need not have recourse to idle stories for their amusement. And why is all this so rare ? Is it not because the education of the poorer classes has been so neglected, and when undertaken, so unfitted for their station and its duties ? It is not filling the memories of children with lessons, giving them the rules of arithmetic as a mechanical operation, teaching them to read without any exercise of thought, that will accomplish what is desired : they must be trained to the right use of their senses, and to draw correct conclusions from what they observe ; they must be educated more upon things, and less upon books, and whilst instructed in the doctrines and precepts of the Bible, they must be made to feel that they are of daily application, and through the power of the Holy Ghost, a living principle, not a dead letter. By such

an education, they will be prepared for a life of usefulness to themselves and others, and have sources of pleasure within their reach, which may preserve them from lower gratifications.—MISS MAYO : *Practical Remarks on Infant Education*.

25. *Of the Training System.*

HINTS TO TRAINERS.—INTELLECTUAL TRAINING.

(1.) Never commit words to memory until the meaning is previously analysed and understood.

(2.) Do not omit to exercise the verbal memory of your pupils, only let it be subsequent to the exercise of the understanding.

(3.) PICTURING OUT is a fundamental principle of the training system. Picture out the outlines first, which is the natural mode, and let the same process be observed in drawing out the minuter points *progressively*.

(4.) If you have drawn the picture, and analysed it with truth, the children must be prepared to give the lesson, just as they would recognise the likeness of a human face. If they see the picture properly drawn, they must be able to tell what it represents. When we say, "picture out," always remember that the children draw the picture with you, and make part of every sentence their own ; and this is done, not by mere question and answer, but by question and ellipsis mixed.

(5.) You will remember, that however useful necessary objects and pictures of objects are, interest and instruct the young mind, yet the systematic principle of picturing out in words is more varied and efficient, and, whether in conversation or at the gallery lesson, fills up those innumerable interstices of a quality or subject which no number or variety of real objects or pictures can possibly. We proceed on the fundamental principle, that every word in the English language *either represents an object, a combination of objects, or may be pictured out in words representing objects.*

(6.) Allow all or any of the children in the gallery to answer simultaneously. Notice one or two of the answers, or fillings up of the ellipses, whether these are right or wrong. Convince the children of the wrong one by something analogous, exercise their minds up to a point that shews the error. If you do not notice the wrong answers as well as the right ones, they may continue to be repeated. If you notice no answer till you get the right one, you will only create, or at least perpetuate confusion and noise. Cause the whole children to repeat the correct answer ; if not in every case, it be frequently done, and that at every leading point or chain of the exercise or lesson. This fundamental principle of the system, and unstrictly attended to, much of the power of the gallery will be lost. In order to secure that

require the knowledge proposed to be communicated, is not necessary that all answer at any one time ; but it is necessary that you secure the eye of the whole children, and, as a natural consequence, their attention ; and, as already stated, let every correct reading point answered by a few of the children, or by any one child trained to the correct answer by yourself, be repeated by you, and afterwards by the whole of the scholars in one voice.

(7.) The simultaneous method of answering, and the sympathy of the gallery, is vastly more natural and effective than the individual method. You may very soon, by question and answer, pump one boy only ; but you cannot so easily exhaust one hundred seated in a gallery, variously constituted as they are, and all being permitted to answer. The master's duty and privilege is to be the filterer, purifying and directing all into a proper channel.

(8.) Let your uniform practice in every lesson be *question and ellipsis mixed*—not the mere question and answer system.

(9.) An ellipsis is a powerful and very natural link in training, but if not judiciously made, may become very unmeaning and trifling. The ellipsis to be filled in ought always to be some word or words which the children *ought* to know, or which they have at the time been trained to, and which, when so expressed by the children, while it awakens attention, fixes the whole point in the memory—

such being of course a leading part of the sentence. In the examples given of ellipses, both in England and America, we find such as the following :—God made the ... that looks so ..., God made the ... so green. If, during a previous lesson, the sky had been spoken of as blue, the children might be expected to fill in the last word of the line, *blue*; but the first ellipsis, God made the ..., is absurd, for as God made everything, the answer of the children would be a mere guess.

(10.) Do not explain, or *speechify*, or attempt to preach—train by analogy and illustration.

(11.) Remember that the exercise of the faculties is the chief and important part of education, not the mere amount of knowledge imparted. We acquire, after all, little knowledge in school; the important matter is to have the outlines so fully, broadly, clearly, and firmly laid, that the children may have the power of acquiring and filling in the minuter points after they leave school.

(12.) Always keep in view that teaching and training are distinct things, and that the former is included in the latter. Teaching may be considered as the implanting of principles—training as the exercise of these principles.

(13.) *Do not forget that most important practical axiom, A LESSON IS NOT GIVEN UNTIL IT IS RECEIVED.* You may speak, and your pupils may hear, but your lesson is lost unless they understand. It is

true, you must possess the knowledge you mean to infuse, but the manner *how* is practically paramount. Study, therefore, manner, voice, and simplicity, as of primary importance.

(14.) The power of the gallery, and its stimulating process, almost entirely supersedes the necessity of taking places in school. Taking places stimulates the intellectual powers, but at the same time too frequently calls forth the worst passions and propensities of our nature. All rewards and stimulants ought as much as possible to be in conformity with the principle of moral training. No sacrifice of the moral must ever be made to the intellectual powers ; on the contrary, uniformly give the precedence to, and exalt the former.

(15.) The Training System, in its intellectual department, does not present a list of subjects and books, a knowledge of which the pupil is to acquire, but is *a key to unlock the subject of any book*. That system, however, is not the Training System under which the whole moral being, *the child*, is not trained physically, intellectually, and morally. The whole powers of a child cannot by any possibility be trained apart from the religion of Christ ; for under its influence alone are the whole affections, as well as the whole understanding, brought into exercise. What is true in regard to children, is still more apparent in adults. We all admit that the intellect receives its highest polish, when the whole affections, as well

as the whole understanding, are exercised. On this point frequently draw your attention to the striking difference in the intellectual elevation of workmen who are acquainted with divine science, and those of equal natural powers who are acquainted only with ordinary science. The Training System, therefore, as a system applicable to the moral being, is incomplete without Bible Training.

(16.) The mental and moral influence of the public training school is powerful, very much in proportion as the *sympathy of numbers* of the same age is brought into exercise.

(17.) The Training System (intellectually) in its different stages, may be shortly stated as follows :— In the Infant department, the bold, clear, and well-defined outlines of every subject. In the Juvenile department, some of the more minute outlines. In the adult class, and in the University, minuter still ; and in after life, these same outlines may continue to be progressively filled up by reading and observation.

PHYSICAL TRAINING.

(18.) The great secret of securing the attention of the children, and thereby exercising and training their mental and moral powers, lies in a proper and continued variety of manual or physical exercises.

(19.) Never commence a lesson till you have drilled your troops in the gallery, and obtained perfect

silence, and the attention and eye of every child present.

(20.) Articulate yourself, and cause the children also to articulate, every word and syllable separately and distinctly, and the unavoidable accompanying stiffness will soon wear off, and leave a clear and effective enunciation.

(21.) Speak yourself, and cause the children to speak, in a soft and sometimes under-tone in school, and allow them occasionally to extend their voice, and their lungs to have fuller scope in the play-ground.

(22.) Be sure you keep the play-ground, flower borders, and out-door conveniences, neat, clean, and in the utmost order.

(23.) Let every moment to and from the play-ground be accompanied by vocal music—some cheerful, animating rhyme or other.

(24.) When you have the opportunity, allow the children, or part of them, by turns, to weed or rake the ground, or pick up the stones. The more perfectly *à la militaire* you give the command, in a firm, soft tone of voice, the more improving is the exercise, and the more delighted are the children.

(25.) Stand at least six or seven feet from the gallery—pace along very little—let your position in general be with your left foot rather behind—your head perpendicular, so as to move it easily from side

to side, to secure the eye of the children, the rest of your body forming an *obtuse* angle, quite à la Française.

RELIGIOUS AND MORAL TRAINING.

(26.) Take every opportunity in the course of your lessons to cultivate respect for parents, and all in authority ; of course love to God, and paramount obedience to His law, as the rule and standard of obedience.

(27.) Remember that mere Christian knowledge in the head does not morally elevate—practical knowledge alone morally elevates. *Doing*, in conjunction with the understanding and affections, is moral training.

(28.) Be uniformly present with the children when they are at play, and, in conjunction with the other influences of the system, they will be restrained from much evil, and trained to much good ; for thus they will *simultaneously* have in operation the influence of the master, their play-fellows, and their own conscience.

(29.) It is of little use merely to tell a child not to sin. If you wish to train him not to sin—not to steal for example, illustrate by such occurrences as Achan in the camp—not to tell lies, by the sad fate of Ananias and Sapphira—not to indulge in pride and vanity, by poor Absalom ; and when these and

many others are fully and progressively pictured out and analyzed, the children will be quite prepared to know, and in some measure to feel, the principle—"Be sure your sin will find you out."

(30.) Not only is a knowledge of natural science, to a considerable extent, necessary in the person who would practise the system of daily Bible training, but he must render himself familiar also with the manners, customs, imagery, climate, and productions of Eastern nations. We have only to look at the Psalms for a convincing proof of the necessity of this. For example—"Like a tree planted by a river;" "the sun shall not smite thee by day, nor the moon by night;" "my horn shalt Thou exalt;" "as the dew of Hermon" (so brotherly love, &c.); "as for man, his days are as grass, as a flower of the field," &c. &c. Consult, therefore, such books as describe these manners, customs, &c.

(31.) There is a desideratum in the machinery in large towns for the "godly upbringing" of the young, which the training system supplies. The facts are these—*mental and moral sympathy* is stronger in large towns than in small towns, and stronger in towns and villages than in the country. When the gallery and play-ground of the training school are employed, they meet that increased amount of sympathy, and train the energies of youth to what is right, instead of permitting them to train themselves to what is wrong. The old systems provide for the

moral and religious *instruction* of the children to a certain extent, but not for their moral *training*. In the properly conducted training school, moral habits are cultivated ; whereas in the street, immoral habits are formed.

(32.) Practically remember order—cleanliness—obedience. The first lesson, and the continued lesson, in a training school, is obedience—*instant obedience*—quite *à la militaire*. Whatever orders you give, require instant obedience. Obedience, *instant obedience*, lies at the root of all proper training. By disobedience man fell, and by obedience he exhibits his restoration to the image, love, and favour of God.

(33.) Authority is not maintained, far less established, by a loud, harsh, or angry tone of voice ; a low, gentle, yet firm tone is decidedly the most efficient. To female trainers more particularly we would simply say, be *firm*.

(34.) Devise amusing games for play-ground exercises, and such as will cultivate kindly affections ; for example, forbearance, courteousness, &c. Discourage all games of chance—encourage all innocent games of skill and dexterity.

(35.) Remember in training children, that the mode is not to put things out of their way, but *in* their way. In the flower borders, therefore, we should not place the pink or the strawberry, the gooseberry-bush or the cherry-tree, beyond, but *within*, the reach of the youngest child. Such things

must come within their reach frequently through life, and it is well that they be trained to the principle—"Look at everything, and touch nothing."

(36.) Train to forgiveness, by causing the child to do a generous action to another who may have offended him. Discourage the slightest approach to cruelty.

(37.) Train to benevolence and generosity, by making the child practically so—no matter how trivial the action or gift. The principle may be exhibited equally with a penny as with a pound; by a kind look as by great personal sacrifice; by the widow's two mites as "by the rich man's gifts."—*Stow : Glasgow Training System.*

26. Example of "Picturing Out."

THE CAMEL.

Now, children,* you see this picture (presenting the picture of a camel, if you have one, but if not, you must describe its comparative size with some

* No lesson is proceeded with until the children are physically and intellectually drilled into order. At the end of every point of the lesson, also, some slight physical movements are requisite, such as stretching out arms simultaneously twice or thrice, rising up and sitting down, clapping of hands, &c., varied according to the age and condition of the feelings of the children. Some of these are absolutely requisite before and during the progress of any exercise, but the most powerful means of securing the attention is to picture out naturally, and vary the tones of voice.

animal they are acquainted with, noticing also the peculiar hunches upon its back), I shall tell you the name of this animal. It is called the camel. What did I say its name was? *The camel.** Camel is the name of this ... *animal*. The camel, children, lives in hot countries, such as Arabia. Arabia is a very hot ... *country* in Asia, where there are hot sandy deserts, in which there are neither trees nor ... *grass*. The camel, children, has feet and legs, and ... (pointing to the parts) *a head*, and ... *a back*, as every animal has. *What a lump on its back, master!!* This is a ... *lump*. Do you remember the name I gave that lump? I called it a hunch. Repeat it, a ... *hunch*. A great ... *hunch*, and that is a ... *lump*, or ... *hunch*. How many hunches has it got? *Two*. It has got two hunches on its ... *back*. This one is on ... Where is this one near? Supposing this boy went on all fours, that is, suppose this boy walked on his hands and ... *feet*, and a hunch were above this ... *place*. What do you call this place? *Shoulders*. The camel, then, has a hunch upon its ... *shoulders*, or close behind its ... *shoulders*, and another upon ... What is this? *Tail*. Is this the tail? *Back, sir*. It is upon its ... *back*, near the ... *tail*, close to the ... *tail* ... but not upon the ... *tail*.

* Every word in *italics* is supposed to be the answer of the children; the pauses marked thus ... shew where the trainer forms the ellipsis.

Now then, children, I shall tell you something more* about this wonderful ... *animal*. *It has got crooked hind legs, sir*. Very right, my little girl, the camel has got very broad strong hind ... *legs*, which look as if they were ... *crooked*; and in the next lesson we have upon the camel, we shall say something about the use of what appears a crook in its ... *legs*, its hind ... *legs*, and you will be better able to understand the reason then, than you would just ... *now*.† Well, let me tell you that the camel has got on its body very fine hair, of a light brown ... *colour* called ... What would you call the hair that grows upon the camel? What would you call the hair that grows upon the cow? *Cow hair*. Now, answer me. What would you call the hair that grows upon a camel? *Camel hair*. This hair, children, is made into cloth, and makes very pretty ... *cloaks and jackets, sir*. I have no doubt that cloth made from camel's ... *hair*, would make a jacket, as this boy ... *says*, but it is made chiefly into cloaks or ... *mantles*. The climate‡ is too hot for jackets, that is to say, the sun is too hot in the country where the camels ... *live*, for the people to wear ... *jackets*. People in hot countries generally prefer loose, wide clothes, to clothes that fit tight like a ...

* Some slight physical exercises.

† We give the outlines first. At the same time acknowledge the answers and observations of the children.

‡ A word they can scarcely as yet understand, but being expressed, the trainer must break it down.

jacket. Why? *Because they are cooler*. The air passes more easily over the body when the clothes are loose than when they are ... *tight*. They prefer using loose cloaks in that climate or ... *country*, to wearing tight ... *jackets*. The climate is very hot in that part of the ... *world*. What part of the world are we speaking about? You will remember I told you at the beginning of the lesson. What was the name? *Arabia*. This boy is right. Don't forget the name of the country where camels chiefly live. Repeat the word, ... *Arabia*. Again, ... *Arabia*. Very well. The camel's hair is made into ... *cloaks* and ... *mantles*. Do you remember, in one of our Bible lessons, who is said to have worn a garment made of camel's hair? *John*. John the ... *baptist*.* Very well, children, you have said that the camel lives in ... *Arabia*—that it has two hunches on its ... *back*, one large, as you see, and the other ... *small*, or ... *smaller*, that its hair is a light ... *brown colour*, and very ... *fine*. And what do the people make of its hair? *Cloth*. Cloth for ... *mantles*.† Look what a nice place that would be for a ride, children. That place is something like a ...

* Of course the trainer remembers that this fact occurred in a Bible lesson, otherwise the question would not be put at this time.

† The children, of course, make many mistakes, which must be corrected by training, not *telling*; but to exhibit which on paper would render the perusal intolerably tedious and verbose.

What is put as a seat on a horse's back? *A saddle.* What do you think that place is like between the two hunches? *A saddle. That would keep one from falling, master.* Very right, boy. The hunch behind would keep you from ... *falling back.* All repeat, children. Let all repeat ... *simultaneously.* This hunch behind would keep ... *us from falling back,* and this one near the ... *shoulder,* would keep you from ... *falling,* from falling on its ... *neck.* But perhaps you might fall by its sides. *The stirrups would keep me up.* Oh, then you are for stirrups, my boy. You would ride very safely on the camel's back if you had ... *stirrups* between these two large ... *lumps.* Lumps!! ... *hunches, sir.*

Now, I must tell you something more about this wonderful ... *animal,* and then you will tell me what you think of ... *it.* The camel is a very tall animal, as high as six feet, that is from the ... *floor,* to a little above my ... *head.* (The master pointing first to the floor, and then to the top of his head.*) What do you think I would do were I wishing to take a ride on such a high beast? How would I get on its back? *You might take a stool.* But suppose I had no stool, and were in the deserts of Arabia? *I would jump.* Could you jump as high as yourself, think you? *Yes, sir.* Try it. *No, sir, no.* Now,

* Action, suited to the words, is important in training, as it is in all public speaking. The attention of the old, as well as the young, is arrested by it.

I'll tell you what they do. The keepers of the camels *train* them, when they are young, to kneel ... *down* upon their ... *knees*. By training, I mean they make the camels ... *kneel down*, that is to say, when the keepers train the young camels to kneel, they make them ... *do it*. When the camels are trained to ... *kneel* on the ... *ground*, they do it.* The keepers whistle, or make some particular ... *sound*, and the moment the camel hears the ... *whistle*, they ... What do they do? *They kneel*. All repeat—they ... *kneel*, and when they kneel, any man can ... *jump on its back*, and after a person is on its back, they can ... *take a ride*.

Now then, the camel rides with a man, or any burden, on ... *its back*, just like ... What animal do we use for riding here? *A horse*, but it is much stronger than a ... *horse*. It can carry a greater weight on its back than a ... *horse*. How long do you think a horse could go without water to drink? *Don't know, sir*. Do you think a horse could want water a whole day? *My father's cart-horse drinks every morning and every night*. Not oftener? *Yes, sir, at meal hours*. Your father's horse takes water, you say, several ... *times a day*. Well, let me tell you that the camel can travel through ... What sort of places did we say it travelled through in Arabia? *Hot sands*. Dry, burning ... *sands*,

* This is the principle of the Training System intellectually, as well as physically and morally—*Doing*.

burning with the heat of ... *the sun*, for a whole week together, without taking a ... *drink*. *Does it get no water, sir?* I'll tell you about that just now, children. There are no wells, or rivers, or ... *ponds*, or water of any kind in these deserts, and God has so made the stomach of this ... *animal*, or rather God has given it two stomachs, a double ... *stomach*. You know the stomach is where you put your ... *meat in* when you ... *eat*. And what else? Where do you put your drink in? *Our mouth*. And where does the water go after that? *The stomach*. Well, as the camel requires to carry heavy ... *men*, and heavy ... *women*. And have men and women ever any things to carry? *Goods*. The camel has goods and other ... *things* to carry, besides men and women, which are a great burden to ... *them*, through the wide sandy deserts of ... *Arabia*, for a whole week together, without coming to a place where they could get ... *water*, so God has, out of His goodness, provided them with a large ... Where does an animal put the water it drinks? *Its stomach*. God has provided it with a ... *large stomach*, or rather a double ... *stomach*, so large that it can take in as much water in one of its ... *stomachs*, before it starts on the journey, as serves it the ... *whole time*. This boy's father's horse* requires or needs water

* While you acknowledge the answers of all, from time to time, and thus stimulate all, the master, as a moral trainer, must take care not to be partial, and that while he acknow-

every ... *day*, several times ... *a day*, and there is plenty of water in this ... *town*. What would a horse do in the sandy deserts of Arabia, think you? *Die*. Die for ... *want of water*. It would be so thirsty from want of water that it ... *would die*. You say the horse would die there. Would the camel die! *No, sir*. Why? *It has a great quantity of water*. Where? *In its inside*, that is, in ... *its stomach*, which serves perhaps for seven or eight ... *days*, when it is crossing, that is, when it is walking ... *through the deserts*, the hot dry burning ... *sands* of ... *Arabia*. The horse, such as we were speaking about, you say would not do for the sands of ... *Arabia*, but the camel will do to ride across the deserts of ... *Arabia*.

We have a number of things to speak about this wonderful ... *animal*, which I must tell you at next ... *lesson*, but I wish to speak about another thing at present. It is about its feet. The camel has very wonderful ... *feet*. They are very broad, large feet, and very soft and spongy, like a piece of ...

ledges the answers of the forward and warm-tempered children (*who are always ready and willing to make a show-off in school*), he as often notice, and comment upon, those offered by the more gentle and timid, whose answers are generally not less correct, but who require encouragement to express them; and the particular notice of whose answers, *in turn*, also acts as a check on the too great forwardness of the other party. The practical exercise of this principle stimulates all alike, protecting and encouraging the timid, and regulating and moulding, by degrees, the spirit of the forward.

Mention any thing you know to be soft? *Mutton, bread, butter, beef, my cap, flesh, my hand, two-penny loaves, sir.** That will do, children. One boy says† that the feet of the camel are soft as his ... *hand*. Tell me why you think God has made the feet of the camel soft? Tell me also why God has made the horse's feet hard? Attend, children. What kind of ground does the horse walk upon? *Soft ground*. Where does it walk when carrying a burden, or when a man rides it? *On the road*, and in towns on the ... *street*.‡ What would take place were the horse's feet as soft as the camel's? *They would be hurt*. Our roads and streets are covered over with ... *stones*, and a soft foot like the camel's would ... *be hurt*. The horse's feet are very ... *hard*, and the farrier, that is the man who shoes horses—the farrier makes them harder by doing

* Too wide a question, the trainer consequently receives too many answers, and must concentrate their ideas upon one point, and seize upon one of the answers as the nearest, and train the children to the correct one he wishes to reach.

† The moment the master fixes upon an answer, all are silent, to hear what is to be said upon it. This does not depend on its being right or wrong: they are satisfied that some answer is attended to.

‡ During the next lesson, or in Stage II., the reindeer might be brought in as a comparison; but the horse, an animal they are in *some measure* familiar with, is enough at present. In future lessons, the comparison of the reindeer in the snows of Lapland, the horse at home, and the camel or sheep of the deserts of Arabia, and their peculiar adaptation to their situations and circumstances, will all appear.

something ... What does he do? *Shoes him.* What sort of shoes? *Iron.* Iron ... *shoes.* You and I wear ... *leather shoes.* The horse wears ... *iron ones.* Were the horse to ride with a heavy burden on its back in the sands of Arabia, what would happen? *It would sink.* Its hoofs or feet would ... *sink in the sand,* and then it would not get on its ... *journey.* It would not be able to get over the ... What would it be walking on? *Sand,* burning ... *sand.* And what would happen to its feet? Do you know what its hoofs are made of? *Hard.* True, they are hard, but many things are hard. This table is ... *hard.* *Bony, sir.* Not bones, but almost as hard as a ... *bone.** If the hoofs or feet of the horse are hard and dry like a bone, what would happen to them in the hot, sandy deserts? *They would be bristled.* What do you mean by bristled? *Burnt.* Not quite burnt, but half ... *burnt.* Then, you think the horse would not do for ... *the sand,* the hot ... *sands* of ... *Arabia,* but it does very well for this ... *country.* What kind of feet did you say the camel has? *Soft.* Very spongy and ... *soft,* like a *lady's hand,*

* It would not do at this early stage, when nearly every fact is new to the *children,* to divert their attention from the direct course, by giving the analogy between the construction of the hoof of the horse, with other substances, such as horns, nails, whalebone, &c. This comes under its own particular head.

not dry like the ... *horse's feet*, but soft and full of moisture, like the palm of my ... *hand*.* What has the camel to walk upon, children? *Sand*, soft ... *sand*, and therefore God has made its feet ... *soft*. Soft, to walk over the fine ... *sand*, full of sap like oil, that never dries up any more than my foot or ... *hand*. Now, tell me, why are they full of sap? That they may be ... *able to walk in the deserts* a ... *long time* without their ... What would happen to their feet if they were as dry as the horse's feet? *Dry up*. The camel's feet, then, do not ... *dry up*, although they should be walking through hot ... *sand* for many ... *weeks*. Did I say weeks, children? *Days*. Although the camel's feet are walking over burning ... *sands* for many ... *days*, and its feet are large. Why are they large? If you wish to walk through deep snow, whether would you use stilts, like the boys when walking across a small river, or would you put on snow shoes, like the Laplanders? You will remember we were speaking about the snows of the north the other day. Whether do you think the stilts or the snow shoes would sink the faster? *The stilts*. The stilts would ... *sink deep*—the snow boots do

* The trainer, shewing and pointing to the palm of his hand. The child, in this way, adds, *incidentally*, another word to his vocabulary, viz., *palm*, the idea and the word representing the object being combined.

not ... *sink*, they do not sink very ... *much*, because they are ... What shape are they? What size are they? *Large*. The snow shoes are ... *large* and ... *broad*, broader and longer than a man's ... *foot*, and the feet of the camel are ... *large*, and therefore they do not easily ... *sink* in the ... *deserts*, the sandy ... *deserts*. You can tell me who made all things? *God*. God made all things very ... *good*. Horses have hard hoofs or ... *feet*, which suit them to travel in this ... *country*, or any ... *country* where its feet would not ... *sink*, such as the ... *deserts of Arabia*. I must tell you that there are plenty of horses in Arabia, beautiful horses to be found in ... *Arabia*, for there is hard ground in Arabia as well ... *as sandy ground*, but then, Arabian horses wont do for the ... *sandy deserts*, where their feet would ... *sink*, and where they would get no ... *water*.

But the camel's feet do not ... *sink in the sand*, being ... *soft and big*. And what does it do for water? *It carries it in its stomach*. In one of its ... *stomachs*, and with the other it digests its ... *food*. God, then, who made all things very ... *good*, has made the camel to suit the ... *sandy deserts*, and the horse to suit ... *other places*. Very well, children.

Now, I fear you are getting tired, children ; we must have a little ... *exercise*. Heads up—shoulders

... *back**—chin in—heels ... *close*—toes out at an ... *acute angle*—hands on ... *knees*. Now, perfect ... *silence*.† We shall have done immediately. Let me see if you remember what we have said? The camel is an animal ... How high? *As high as you, sir*. How many feet? *Six feet*. I am not quite six feet high, therefore it must be fully ... *higher than you*. I forgot to tell you that the camel is about ten feet long, that is, as long as that ... *desk*. Six feet ... *high*, and about ten ... *feet long*. It has two large ... *lumps*. Remember the name I gave you ... *Hunches* on ... *its back*, which make a ... *nice saddle to ride on*. How many stomachs has it? *Two, sir*. One of them is ... *large*. For what purpose? *To keep water in it*. A curiously formed stomach, that contains as much ... *water* as serves it ... *on its journey* across the ... *sandy deserts of Arabia*, for, unless it had this

* When the children fill up the word, or some of the words, they instinctively perform the action. Were the master simply to *tell* them what to do, they might not attend; but when all fill in the ellipses, all must and do attend.

† Rising up, and sitting down, simultaneously, not by a stamp of the foot, which is clumsy, but by following the motion of the master's hand, from the horizontal, slowly or quickly, to the perpendicular, and again to the horizontal, as often, and as variedly in celerity, as he pleases. The eye being necessarily fixed on the trainer, secures the attention; and this, and every similar exercise, cultivates the habit of obedience, which is the first lesson, the intermediate, at every stage, and the *summum bonum* of training intellectually as well as morally.

quantity of ... *water* in its ... *stomach*, it would die for ... *thirst*, on account of the ... *heat* and dryness of ... *the place*, the sandy ... *deserts of Arabia*. You also told me that the camel's hair was ... *fine*, and what colour? *Brown*. A light ... *brown colour*, and that the people make it into ... *cloth* for ... *mantles and cloaks*. And what did we say about its feet? What kind of feet are they? *Soft and spongy*; and what else? *Large*. Soft to feel the sand, and not dry ... *up*, and broad, so that they may not ... *sink in the sand* when the camel has a large burden on ... *its back*. The camels go in great numbers through the deserts, with men, women, and ... *children* on their ... *backs*, and also ... *goods*; but we must speak about these things again. It is now time to get out to the ... *play-ground* for a little, before we have any other ... *lesson*.

I am thinking, children, of the camel's soft feet. The camel walks so gently with its soft ... *feet*, that were one to come into this ... *room*, you would scarcely hear it ... *walking*. It would scarcely disturb little ... *Henry* here, who is beginning to get a little ... *sleepy*. Henry is not ... *sleeping*, just a little ... *sleepy*; and if he do not get out soon to ... *the play-ground*, he will get fast ... *asleep*.* So

* Long before this, little Henry is, of course, quite lively. A pull, push, or a touch with a rod, whatever effect any or all may have at the moment, is not so lasting as a gentle appeal to the understanding or feelings.

you think the soft, gentle walk of the immense ... *camel*, passing the gallery, would not disturb a half-sleeping ... *child*.

Now, children, prepare to march to the playground. We shall sing the "Camel." March prettily—make little noise—do not scrape or beat the floor with your ... *feet*—Go on.

To many persons who are unacquainted with the Training System, this example must appear absurdly tedious. Slow, however, as the process is which we have exhibited, many points, even of the few that have been pictured out, are too abrupt. The whole, no doubt, might have been told the children by *explanation*, and embraced in half a dozen sentences ; or by the question and answer system, in a couple of pages ;—but neither the explanatory system, nor the mere questioning, secures, in regard to children, an equal amount of understanding as the principle of picturing out.—Stow : *Glasgow Training System*.

27. *Of the Labour-Schools of De Fellenberg.*

De Fellenberg purchased about two hundred acres of land, of which fifty were arable, for the scene of his experiments. He intended to make the cultivation of his own estate the model by which others might learn how to improve theirs. The improvement was to consist in drainage and irrigation ; in

manuring and mixing soils ; in the rotation of crops, and in introducing new plants for cultivation ; in the perfection of old instruments of agriculture, and the invention of new ones. He established workshops upon the estate, in which all the implements of husbandry for his own use, and for general sale, were fabricated, including also a department for making and preserving models of all machines in use, or which it was proposed to bring into use at any future time. All that had been done in England during the last half century, for the general improvement of agriculture, was aimed at by Fellenberg, in reference to the capabilities of his own estate and country. But Fellenberg's views and principles led him to perceive that labour might be regulated and modified so as to become a system of moral instruction, as well as one of industrial employment. He therefore determined to make an agricultural school his first step towards the moral training of children, and the improvement of their character. His first school was formed of the destitute or abandoned children of the neighbourhood partly, no doubt, from necessity ; for till confidence in his views had been established, no others were to be had. But Fellenberg was prompted by other motives also ; by a deep and religious conviction that the Deity had originally made " all men of one common blood ;" that the lowest, as well as the highest, are born with the same susceptibilities ; tha

vices, therefore, into which the lowest ranks sink engrafted by their position, and the neglect of their superiors, and might be prevented by early education, or obviated by better culture. To rescue them from their moral degradation governed all his views. He considered that the destitute children whom he might collect, and who commonly became pests of the community would prove at once a test of the truth of his own principles of education, and of the real causes of the degradation of their character. His agricultural school was therefore his first essay in education.

The success of a school of this kind depends entirely upon the MASTER: who must be not merely a teacher of reading and writing, but the companion, friend, guide, and parent of the pupils: he must never quit them, by night nor by day; he must take his meals with them, labour with them, converse with them, explain everything to them, instruct them, play with them, and sleep in the same chamber. Without such a master, whom the children

love, because he is kind and amiable,—revere, because he is of a certain age and character,—and respect, because he possesses a fund of knowledge and information useful to them on all occasions, and to which their curiosity can always freely and be satisfied, the system cannot succeed. Lenberg was himself the friend and instructor at the beginning; but it was some time before he could

meet with one to supply his place in a character at all times perhaps difficult, but then entirely new. At last he discovered in Vehrli, one of his pupils, the disposition, kindness, simplicity, judgment, tact, and knowledge, he required. This person entered completely into his views, perceived their extensive and beneficial nature, and felt the honour of assisting in so valuable and useful an institution. He acquired the practical facility of conducting it, and did so with entire success until he removed to a school of his own a few years ago. The following are the details of management : *

* Children should be admitted at the age of five or six years, and remain in the institution till they are twenty-one. During the first ten years they are an expense to it : during the last five years they repay, by their labour, all the previous outlay upon their education. They then obtain situations in the world—in agriculture, or in some mechanical art, and maintain themselves, like other workmen, by their skill and industry ; but being better taught and superior workmen, they more readily find employment ; and being of a better moral character, they fill places of more trust and emolument ; and possessing habits of greater economy and prudence, they turn their earnings to better account.

In the year 1813, twenty-six years ago, a commission was appointed to visit and examine the agricultural school at Hofwyl. At the head of it was Reuyer, one of the most distinguished men in Switzerland. They spent six days in examining all its details—food, dress, accommodations, religious exercises, studies, labours, and occupations. It then consisted of twenty-three children, taken from the lowest classes, the highways and hedges, destitute and abandoned ; they were now living in harmony, peace, and affection ; punishment was seldom wanted ; when necessary, it consisted of mild rebuke,

The children rise in the morning at half-past four or half-past five o'clock, according to their age. Half an hour is allowed for washing, dressing, making their beds, and arranging their rooms. They then go to prayers; then to lessons, for one hour in summer, and an hour and a half in winter; and then to breakfast; then the master allots to each class, or to each individual, his employment for the day. At eleven o'clock they dine, and then have a lesson of an hour or an hour and a half. At four or five o'clock, according to the season, they have bread given them, and a third lesson. At seven o'clock they sup, and the master reviews the work of the day, and the conduct of the children. Their beha-

remonstrance, in private or in public, before the other children; exclusion from social meals; and lastly, corporal, which, when necessary, is inflicted with the greatest consideration and concern, so that the pupil may perceive that nothing but necessity could have extorted it from the teacher. This necessity is explained to him; the danger, degradation of character, and ultimate misery and ruin occasioned by crime, and the propriety of preventing refractory habits by bodily pain when higher and moral motives are insufficient. Corporal punishment is never required except for new pupils.

One evening, after an interesting lecture, Vehrli cautioned one of the children, without mentioning his name, to be on his guard against a fault he had committed; immediately all became serious and silent, each seeming to take the reproof to himself. Very often, when conscious of having committed a fault, they pass judgment on themselves, and absent themselves from meals; Vehrli then sends them their food to a private room. In the year 1832 this school consisted of one hundred boys.

viour and character are particularly noticed : praise or blame are bestowed according to circumstances ; and the motives, principles, and responsibilities of human conduct are explained and illustrated from what has happened among themselves, as far as is suitable and intelligible to their understandings. They then have prayers, and the youngest go to bed, while the older ones amuse themselves in any way they please—with reading or gymnastics, but generally with music, in which they delight, and which is made to serve a most useful purpose in softening their hearts and characters. The children of the Swiss peasantry are continually exposed to all weathers, and therefore become hardy and robust, and remarkably free from diseases ; the children of the agricultural school are brought up upon the same plan : they wear no hats, and in summer-time no shoes ; their clothing is simple, clean, and comfortable ; their bed a straw mattress. They assist in preparing their own food, which is the same as that of the peasantry—soup at every meal, vegetables, bread and milk. They eat meat only once or twice a week ; and on holidays they are allowed the wine of the country. The children are habitually cheerful, happy, and healthy, which is a sufficient proof of their being properly fed and clothed.

During the summer they spend more time in working on the farm than in winter ; but their employment is adapted to the age and strength of each

child. The youngest are occupied in picking and breaking stones, or in weeding. During harvest, ten or twelve hours are employed on the farm, and only between three and four in instruction. In the winter, the school hours are six or seven.

When the weather does not permit them to go abroad, they learn to make baskets, and various useful works in straw, &c. They are all taught to mend their own clothes.

In order to teach habits of order and carefulness, each child has a special office assigned to him: one keeps the chambers clean, another the furniture, another the pavement, &c. Three of them are chosen to superintend and inspect the whole, and are changed every three months, in order to accustom them to all kinds of work and duty. Even the youngest have some office found for them.

They are allowed to work for their own profit. Each child has a garden of his own, which he cultivates with flowers or vegetables; he collects all his manure from the roads, or from the dead leaves of autumn; he either sends the produce to market, or sells it to the establishment, when he is allowed its value at the end of the year, with interest, even upon so small a sum as a franc. Two or three children will go shares in a garden or a fruit-tree, and dispose of the produce in the same manner. The elder ones constantly assist the younger ones in managing their ground. A principle of order, method, and the di-

vision of labour, pervades all the details of the establishment. The management of the farm is a distinct office by itself. The master of the children, though he works with them, has nothing to do with the accounts of the farm ; he merely works with the children, under the superintendence of the bailiff, that his whole attention may be devoted to the behaviour and studies of the children. For some years, in the infancy of the establishment, when the number of children was small, Vehrli was able to superintend all the children himself, and to study and influence all their characters : this became impossible when the number of the children increased. Vehrli then acted as general director, and under him assistants were placed ; and it was found that fifteen or eighteen children were the greatest number who could be effectively superintended by one assistant. At the same time, Vehrli continued to watch over the whole, and to hold a private conversation with each pupil at least once in the week, and so to retain their affection and esteem. When the masters were thus increased in number, they held private occasional meetings, in which the general principles and objects of the institution were explained, observations and suggestions made by each, and the conduct and management of the pupils detailed ; difficulties were stated, and their remedies proposed.

The first assistants were not easily found ; but

as the establishment proceeded, promising pupils were selected, who were prepared for the future office. These went through a wider course of instruction than the rest, and were allowed the advantage of being taught in the higher school, which was formed by Fellenberg about the same time. Here they were also employed as the teachers of the junior classes of the higher school, filling the double office of teaching and being taught alternately. This plan has been found to succeed beyond expectation ; the improvement in knowledge and manners, among those of the agricultural school who have studied and taught in the upper school, has been greater than any one had been sanguine enough to expect.

The agricultural pupils are distributed into classes, both in their sleeping-rooms and their labour, according to age, capacity, and character. A pupil of doubtful or bad character is placed among those whose characters are confirmed and good, who exercise over him a salutary influence, according to the great law of sympathy, example, and the force of numbers and of opinion.

The youngest classes, besides the inspector, who never quits them, have a selected pupil placed over them, who acts the part of an elder brother, overlooking and protecting them, and taking care that they keep their persons and dress at all times clean.

The discipline of the agricultural school is mild

and simple, like that of the other schools. It is based upon religion, and addresses itself to the conscience and the understanding, and not to fear. Its greatest reward is the pleasure and happiness of doing what is right ; the greatest praise it meets with is the sentiment of approbation. The constant superintendence under which a pupil is placed, prevents his persevering in a fault : if he repeats it, he is reprimanded ; if it be of sufficient importance, it is reported to the superintendent. A reiterated fault is reprimanded more severely ; and if that is not enough to prevent it, the pupil is separated for a time from his companions. Corporal punishment is rarely inflicted : when it is so, and is still ineffectual, the pupil is expelled, as being incorrigible, and too dangerous a companion for the rest. This case rarely occurs ; and when it does, it is among new-comers. The religious principle, with mild exhortation, generally produces a reform.

Fellenberg considers the great art of a rational and methodical education to consist in finding active and useful employment for every moment of the day. Children are not able to do this for themselves—it must be done for them ; and whoever does it is the true and only educator.

This agricultural school affords the best model of education, not only for the children of paupers, but for those of all the peasantry. Their path in life is

rendered simple, by their being furnished with the means of happiness ; every envious and hateful feeling is extinguished by the spirit of Christianity, and by the value they are accustomed to set upon a good conscience. All useless instruction is avoided ; yet no knowledge is despised or neglected which may hereafter become necessary. A knowledge of, and skill in, agriculture, by which they are to get their living, is made the means of cultivating their understanding, and of forming their heart and character.

Fellenberg considers that every man is born with the most valuable of all capital—the sum-total of his faculties of body and mind. But this capital is worth nothing till it is cultivated and employed ; and the cultivation consists in what alone makes his capital profitable and productive—the education of the labourer. If this capital be brought out and educated, it becomes national wealth ; if neglected, the labourer becomes a burden, by consuming more than he produces, and by becoming a destructive criminal.

The peasantry who have been educated in the agricultural school of Fellenberg may be distinguished from others who have not been so educated, by a kindly spirit, and a quiet peaceable conduct, which never forsakes them. They are always ready, in the Christian spirit, to help and assist others ; and have no desire to quit their station in society, but

are perfectly contented with their condition in life.
— Abridged from *What De Fellenberg has done for Education*.

28. *Of District Schools.*

In proceeding to describe the methods of instruction and moral discipline which it might be desirable to pursue in a district school, no mention will be made of any plan which has not been subjected to the test of experience.

The methods adopted by the National and Lancasterian schools are so well known, that it appears unnecessary to describe them ; but it may be important to mention other methods, an acquaintance with which is not so generally diffused, many of which are capable of being engrafted on the system of mutual instruction pursued in the National and Lancasterian schools, and the adoption of which might, it is hoped, enable these most important institutions to increase and extend their beneficial influence on their community.

Every district orphan school should consist of—

1. An Infant School ;
2. A Juvenile School, comprising—
 - A. An Industrial School for boys ;
 - B. An Industrial School for girls.

In both the infant and juvenile schools of Scotland, the boys and girls are trained together ; and the following reasons are given for adopting this course :—

“ To educate the boys and girls separately will be injurious to both, because it deprives the girls of the benefit of the concentrated answers produced by the stronger minds of the boys ; and it deprives the boys of the quick perception, and sometimes deep feeling, evinced even by very little girls, particularly when Scripture narratives are under consideration.

“ The boys require to be educated with girls, in order to soften the boisterous manners consequent on their exuberant animal spirits ; and the girls require to be educated with boys, in order that they may set more value on intellectual and moral qualifications, and less on frivolous show. It follows, of course, that, if boys and girls are trained together, there must be both a master and a mistress ; for it will be readily granted that there are very few women who possess fine tact, varied information, delicate feeling, and a natural love of children, joined to great physical strength ; all which are absolutely requisite for conducting an infant school.

“ Female instructors alone have been tried before now ; but the schools conducted by them have never succeeded any more than they would do without them. The voice alone of the master commands the attention of the giddy ; there is a formality in all schools conducted by females alone, which is totally destructive of the liberty so essen-

tial towards the development of the infant mind. In the hands of a woman, the reins of discipline cannot be loosened, because she feels the effort of again curbing them would be beyond her physical powers."

In any school in which this arrangement was adopted, the boys and girls would retire to their respective industrial employments as soon as the secular and religious instruction of the school was finished ; and this classification would be maintained during all other hours of the day, excepting those devoted to secular and religious instruction in the common school-room.

The state of the discipline, the character of the children, and the means of moral control which exist, or may be brought into operation, deserve careful consideration in each school before the boys and girls receive religious and secular instruction in the same classes ; and whenever it is deemed expedient to adopt this system, it would appear desirable to apply it in the first instance during the periods when religious instruction is given, or when the children are trained in singing, in both of which cases the change will be a natural adaptation of the practice which prevails during divine service.

For the attainment of the largest amount of benefit, it would be desirable that the child should have the advantage of the entire system of training proposed to be pursued, first, in the infant, and next, in

the juvenile and industrial classes ; though the prior instruction in the infant school is not absolutely necessary to the attainment of much of what the juvenile and industrial schools are calculated to convey unassisted by the previous instruction of the infant school.

In the infant school, the child is separated from the contaminating influence of the street or lane in which his parents reside. He no longer wanders about to contract filth and vice ; his passions, under no wholesome restraint or guidance, daily growing in strength and distortion. It is required that he should be presented at the school cleanly in dress and person. His attention is aroused and captivated by a constant succession of infantile pleasures. He learns to rise, to sit, to march, to beat time in concert with his fellows ; he is taught to sing—in the song some sound precept or some useful knowledge is conveyed. A picture or a living animal is produced, or a specimen from the museum, by which his acquaintance with the properties of natural objects is extended. When his vagrant fancy has been arrested, the teacher seizes the opportunity for instruction in other knowledge less capable of sensual illustration ; an acquaintance with the leading facts of biblical history—a consciousness of the true basis of moral obligation—and a perception of the nature of religious duty—are sought to be imparted : before weariness ensues, the whole school is marched in regular order

into the playground, singing : here the master has an opportunity of observing the development of character, and of rendering the playground the scene of moral training.

The peculiarity of the method of instruction adopted in infant schools is, that, by a skilfully devised system of interrogation, the master discovers the limit of the child's knowledge, but he avoids supplying the child with information solely by direct didactic instruction. Having ascertained what the child does not know, he leads it, by a carefully planned succession of questions, as it were, to infer the truth, and, by having made the attainment of this knowledge an act of pleasurable mental exercise, he not only renders the pursuit of knowledge agreeable, but gives it a stronger hold on the memory. Since the instruction is not simply *conveyed*, but is made to depend upon an accompanying exercise of the child's mind, it is evident nothing can be learned by mere rote, but, on the contrary, everything that is learned must be understood.

The garden and playground are made the means of teaching the children to play without discord, and with an absence of the faults of language and manner acquired in the street ; of conveying to them a sense of the importance of mutual forbearance, of the duty of protecting the weak, of the necessity of self-denial, of the inviolability of property not their own, &c. The frolic of the playground is not restrained by

stern superintendence, but the master kindly assists in promoting order and goodwill, and occasionally, when the children return to school, makes any occurrence of the playground the source of instructive moral illustration by questioning the children respecting it, in such a way as to enable them to see clearly what is right and what is wrong.

Infants between the age of two and six, trained by this method, acquire a much more systematic and extensive acquaintance with natural objects and natural phenomena—have a clearer perception of the true basis of moral duty, and a more lively interest in religion—than the older children who have not had the advantage of this method, though trained in schools to considerable expertness in reading, writing, and arithmetic.

The children in the infant schools would learn the *powers of letters* in small words, and afterwards their names, according to the phonic method invented by Labarre, while a refugee in Holland in 1802, and since introduced into all the Dutch schools by M. Prinsen, and which is universally adopted in Saxony and other parts of Germany, and in Prussia. The utmost pains would be taken to train the children to connect the learning of the art of reading with its use. To this end they would never be permitted to read even small words without shewing that they understood what they read ; and all arbitrary combinations of letters would be discarded. In the Glas-

gow infant schools little or no effort is made to teach children to read before the age of six ; and whatever instruction in this art is conveyed, is a concession to the wishes of the parents, contrary to the views of the directors. The phonic method, however, presents an easy solution of the difficulties which the directors have felt on this subject.

The discipline and instruction of these schools should be purely infantile ; mental precocity is seldom attained excepting at the expense of the health, the reason, or the happiness of the child. In the moral influence of the infant school consists its chief value. The child of the infant school becomes attached to learning as a pleasurable exercise ; and if the method pursued be not suddenly disturbed, he may be led from the infant into the junior classes of the juvenile school with scarcely a perceptible transition, and so onward to the higher branches of instruction.

The gallery is employed in the infant school as a means of arranging the children in a body under the eye of their teacher, and thus enabling him more readily to inspect and control them by arousing their attention, and bringing the sympathies of the body to act upon individuals. The concerted movements by which the teacher intersperses his instructions, and by which he contrives to get rid of momentary lassitude and inattention, are greatly facilitated by this arrangement. In the Glasgow model schools, considerable advantages are said to

have arisen from the retention of this mode of assembling and instructing the scholars in a body even in the juvenile schools ; and it is at once apparent that, as a means of assimilating the juvenile school to the infant school, and thus rendering the transition from the infant school to the juvenile less formidable to a young child, the use of the gallery in the juvenile school may be very important. The scholars in the juvenile school are almost all equally prepared for receiving certain lessons by the simultaneous method in the gallery as an undivided class. Much of the instruction in sound morals and religion, in which it is so important that the sympathies should be awakened, can be most successfully thus conveyed ; and whenever the instruction is made mainly to depend on sensual illustrations by living objects, drawings, or models, the whole school may be readily instructed at the same moment.

In many branches of learning, however, degrees of proficiency will occur, requiring the division of the scholars into classes, and their separate instruction ; and the use of the gallery for the collective instruction of from 80 to 120 children should be confined to religious, moral, and industrial instruction, and to those familiar "object lessons" by which children are made acquainted with the natural phenomena within the range of their observation.

These classes may be more or less numerous, according to the number of children which the school

contains, and the opportunity thus afforded for adopting a more minute classification. In the Dutch schools 50 children are, on the average, instructed in a class by one master. This class is often taught in a room common to it with other classes; but it is evident that, if some expedients were adopted enabling the superior master readily to inspect the proceedings of separate class-rooms, it would be exceedingly desirable that, when 50 children are taught in one class on the simultaneous method, they should receive instruction in a separate apartment. By the "mixed method" two classes may be conveniently placed in one room.

The simultaneous and mixed methods of instruction, which are now adopted in the schools of Switzerland, Prussia, Germany, and Holland, form an essential feature of the internal economy of a school in which it is proposed to teach 40 or 50 children in each class. In order to enable the teacher to conduct this instruction successfully, the desks and forms should be arranged as in the Dutch schools, the scholars being all placed with their faces towards the teacher in successive lines of desks half the usual width. The scholars retain their places while the lessons proceed, the chief demonstrations being given on a large black board, suspended on the wall or on an easel opposite to the class. The teacher, during the reading, spelling, and writing lessons, sits on a platform, slightly elevated, opposite the centre of the

first bench. The simultaneous method may be varied by interrogating individuals, by questioning the class, and receiving collective or individual answers, and by receiving answers in writing from the class. Each of these methods would deserve particular description if that were not inconsistent with necessary brevity : and the method of arranging and communicating such lessons requires illustration with regard to each subject, which can only be properly given in a treatise on method, or in manuals on each department of instruction.

The Dutch schools are commonly divided into four classes, denominated, 1. the preparatory ; 2, the elementary ; 3, the middle ; 4, the superior : the range of instruction given being greatly superior to that which is imparted in any of the schools of the working classes in this country ; but I have no space for an enumeration of what is taught in each class.

In a large body of children, the superior master and his wife would require the aid of assistant teachers. Instead of employing monitors to assist the superior master and his assistant teachers, it would be an improvement if the plan adopted in the normal school at Haarlem were pursued—viz., that certain of the more intelligent scholars (especially orphans), who exhibited considerable zeal and interest, and whose attainments were sufficiently advanced, were selected from the rest to be trained to the occupation of teachers. Such children should receive superior in-

struction at separate hours from the rest, and should be employed in conducting the classes when they were sufficiently prepared by occasional practice to do so. These pupil-teachers would constantly acquire a greater degree of skill and knowledge, until they gradually became fitted alike by their attainments and their practical address to encounter unassisted the responsibilities and cares of teachers. As the pupil-teachers acquired skill, they should be permitted to obtain some remuneration, a modified form of apprenticeship being adopted to secure the completion of their course of training ; at the termination of which, a certificate of competency might be given to those who afforded sufficient proofs, on examination, of skill and general attainments.

The methods of Pestalozzi, as reduced to practice by M. Prinsen in the schools of Holland, appear worthy of adoption wherever the simultaneous or mixed method is introduced, both as respects reading, ciphering, and general instruction.

Among the more advanced scholars, and particularly the pupil-teachers, the art of committing to paper, from memory, an abstract of some passage read by the teacher or by the class, as preliminary to the composition of letters, &c., should be practised as one of the most important modifications of the simultaneous method. Such an exercise should generally, if not always, follow a gallery lesson.

The teacher should depend mainly for his success

upon his powers of rendering the instruction he conveys attractive to his pupils ; and he will chiefly be liable to failure in this respect when he deserts the natural method of imparting knowledge, and neglects to assist this method with the lights of constant and varied illustrations. Such a method will enable the teacher to rule rather by love than by fear. He will not endeavour to coerce his pupil to remember a general truth which he does not understand ; but by presenting to him, in a plain and familiar manner, certain simple elements from which the general truth springs, he will enable him to understand and to remember it, at the same moment, by a pleasurable exercise of mind.

In a school in which these methods of instruction are adopted by a teacher of mild and persuasive character, there will exist little necessity for punishment, and all harsh and degrading chastisement may be at once discarded. It is also desirable that the motives for preserving activity and attention should not be derived from the temporary incentive of some immediate reward, but should arise from the natural attractions with which knowledge is invested, when a correct method of presenting its elements is pursued.

A systematic avoidance of the stimulus of inferior motives, such as the fear of punishment, the hope of reward, and the often unworthy rivalry for personal distinction on account of proficiency, which is ac-

accompanied with mutual heartburnings and jealousies, will enable the teacher to substitute in their place other motives of a superior nature. Intellectual proficiency being an object of inferior value to the establishment of *good habits*, care should be taken that this proficiency is not attained at the expense of those moral qualities, by the persevering development of which alone good habits can be formed. To learn from the fear of punishment, the hope of reward, or the desire of personal distinction, can be only mischievous to the moral sentiments, though the intellectual progress under these stimuli be rapid. The teacher should strive to invest knowledge with its own natural attractions. If he is skilful, he will not need any more powerful incentive to induce the children to learn than the natural craving after truth, when it is presented in simplicity and with the force of novelty.

A plan of moral distinction is substituted in Lady Noel Byron's school at Ealing for the system of distinctions founded on intellectual proficiency alone. Good conduct is thus elevated above mere intellectual attainments unaccompanied by moral culture, and the sympathies of the children, as well as the attention of the master, are directed to the proper objects of *education*, as distinguished from mere *instruction*. The system is thus described :—

The boys take their places in school according to their respective abilities and intellectual proficiency

only. They are made to understand that this arrangement is necessary for the purposes of instruction, but that it is not necessarily connected with merit or demerit. Each boy has to establish his character *each day independently of every other day*, and at his entrance into the school he wears a white badge as an emblem of that fact. At mid-day the white badge is changed for a red one, if his *conduct* have been good, or for a black one, if bad. The moral principles according to which such changes are made are not too numerous, or too minute, not to be easily apprehended by the young. If any boy's conduct has not been sufficiently marked to deserve either the black or red badge, the white is suffered to remain. If a sudden transgression (of truth, obedience, honesty, or kindness) occur, the black badge is put on at the moment.

The master is thus relieved from the necessity of entering into general considerations of the boy's merits, and the appeal made to the sense of right and wrong amongst the boys relates simply to the fact under their immediate observation. By a succession of such living lessons they are gradually taught the essentials of their Christian duty, and a just public opinion is formed amongst them.

To keep alive at the same time the feeling that the conduct of the day does not *pass away* with the day, though each day has its own separate character, a register is kept of the number of red or black

badges given to each boy, and at certain periods the sum total is made public. In this estimate, a fair allowance is made for illness or inevitable absences, which may have deprived a boy of opportunities of receiving the testimonials in question.

The practical results at Ealing Grove are highly satisfactory. The registers exhibit the gradual increase of red badges among by far the greater number of scholars. No stimulation by rewards or punishments is used as an instrument to their moral progress: for if we make virtuous conduct too decidedly the means of present profit and pleasure, we in fact destroy the very motives we ought to rely upon, for the permanency of that virtue in the less retributive scenes of after-life.

While *reading*, the methods pursued in the Sessional School, conducted by Mr. Wood, in Edinburgh, should be adopted. The explanatory and interrogative systems, as developed in his "Account" of this school, should be steadily pursued, and lesson-books employed, in conjunction with the Bible, the Testament, and the Book of Common Prayer, similar to the reading-lessons used in that school. These lesson-books commence with infantile instruction, and gradually ascend, through a series of interesting exercises, to other branches of knowledge, such as geography, natural history, the arts (especially such as are connected with agriculture and manufactures), biography, extracts from voyages, travels, &c. &c.

By means of such lesson-books, not only is a large store of useful information conveyed, but the taste is formed upon a correct model, and the pupils are less liable to be attracted in after-life by the frivolous publications with which the press abounds, or to be led to seek a more dangerous excitement from licentious books.

The reading-lessons used ought thus to enable the teacher to lay the basis of an acquaintance with the elements of useful knowledge; but he should also be careful to convey, by means of oral instruction, such salutary information as may rescue his pupil from vulgar prejudices. He will thus be less prone to become the victim of sensual indulgence: he will also be less likely to be carried away by the current of popular prejudices and passions. Such instruction may be so conveyed as to banish the sense of drudgery from the discipline of the school, and such an acquaintance with the subjects of reading and oral instruction may be afforded as to determine the future direction of the efforts which the pupil may make after further knowledge. The efforts of the teacher will be greatly assisted by a collection of models, and objects in natural history, together with drawings of natural objects, &c.

Among the books used in a workhouse-school, no class of works would be more useful than such as treat of the duties of workmen and servants in their domestic and social relations, and describe the best

methods of gaining a complete acquaintance with any handicraft or art. Such a series is much wanted.

The principles upon which secular instruction should be introduced into the schools of the poorer classes, and the means of communicating such knowledge, are explained in a Charge delivered by the Bishop of London, in 1834, in terms which have raised the propriety of adopting this course beyond the range of legitimate controversy. "Religion," observes the Right Reverend Prelate, "ought to be made the groundwork of all education; its lessons should be interwoven with the whole tissue of instruction, and its principles should regulate the entire system of discipline in our national schools. But I believe that the lessons of religion will not be rendered less impressive or effectual by being interspersed with teaching of a different kind. The Bible will not be read with less interest, if history, for example, and geography, and the elements of useful practical science be suffered to take their turn in the circle of daily instruction. On the contrary, I am persuaded that the youthful mind will recur, with increased curiosity and intelligence, to the great facts, and truths, and precepts of holy writ, if it be enlarged and enlivened by an acquaintance with other branches of knowledge. I see no reason why the education given to the poor should differ from the education of their superiors more widely than the different circumstances and duties of their re-

spective conditions in life render absolutely necessary. One thing is certain, and it is a very important consideration, that, if we teach them the methods of acquiring one kind of knowledge, they will apply them to the acquisition of other kinds; if we sharpen their faculties for one purpose, they will be sure to use them for others. *Some* information on subjects of general interest many of them will undoubtedly seek to obtain; and it is plainly desirable that they should receive it from our hands in a safe and unobjectionable form. It is desirable also, that they should not be accustomed to consider that there is anything like an opposition between the doctrines and precepts of our holy religion and other legitimate objects of intellectual inquiry; or that it is difficult to reconcile a due regard to the supreme importance of the one with a certain degree of laudable curiosity about the other. The experiment of mixing instruction, in different branches of useful knowledge, with Scripture reading, and lessons on the truths and duties of Christianity, has been tried with success in the Sessional Schools at Edinburgh by a zealous and able friend of the poor, Mr. Wood, to whose publications on the subject I would refer you for further information. It has also been tried in more than one large parochial school of this diocese, and the results have been very encouraging. I am, therefore, desirous that additions should be made to the school catalogue of the Society for Promoting

Christian Knowledge, adapted to supply materials for a more varied course of instruction than that which is ordinarily pursued in our schools."

Orthography should be learned chiefly by spelling the words which occur in the reading-lessons, and by writing from dictation such words as are likely to be used in familiar correspondence, and as are employed in the arts and business of life.

Writing should be taught first with the pen, on the method of Mulhauser; and when a certain proficiency has been obtained, writing on the slate from dictation should be practised.

Arithmetic, and particularly mental arithmetic, as successfully practised in the National, Lancasterian, and other schools; and especially the fractional arithmetic of Pestalozzi.

The method adopted by Mr. Wood, of Edinburgh, to convey a knowledge of words and their meaning, should be pursued in preference to the ordinary process of cramming the child with the incongruous series of a vocabulary. Mr. Wood's method is fully described in his "Account" of the Edinburgh Sessional School.

Geography should be taught by extending the pupil's knowledge of the geography of his own neighbourhood, and of its arts and productions, the employment and wages of its artisans and labourers, to that of his county, and then to the rest of Great Britain. Afterwards a more general acquaintance

with the geography of the world, and especially of those parts which offer a sphere for the operations of enterprising industry, particularly the British Colonies, should be conveyed. A book on geography, based on an accurate account of physical features of the country described, written with the requisite simplicity, and rendered attractive by the illustrations which might be interspersed through its pages, would command an extensive circulation in workhouse and parochial schools. It is essentially requisite to remember that the geography of an elementary school is the *geography of industry and commerce*.

In seaports the workhouse school ought to contain a maritime class, in which both the industrial and other secular instructions should prepare (such of the children as volunteer) for the merchant service. A more enlarged and accurate knowledge of geography, skill in drawing maps, and an acquaintance with the elements of the art of navigation, appear important in this department of instruction.

In the Prussian, Dutch, and German schools, and recently in some English and Scotch schools, *singing* has been introduced as a branch of instruction, with signal advantage. The children are practised in such psalmody as is appropriate to the devotional services of the household. The routine of school discipline is also beneficially interrupted at the point where weariness and disorder ensue, by an exercise which diffuses new energy and harmony through the school.

The children march into the school from the garden, the workshop, and the playground, singing such moral songs as have been introduced into infant schools with success ; the intervals of any change of lesson or occupation are filled up with singing. We are also assured, that in Germany the cultivation of vocal music has had a most beneficial influence on the habits of the people ; they have been, to a large extent, reclaimed from debasing pleasures by this innocent amusement.

In the prison for the correction of juvenile offenders at Rotterdam, I was informed that music was valued as an important element of the moral agencies employed. I heard the national anthem and some beautiful hymns sung by the boys in this prison, in a most impressive manner, from notes, with which each was furnished.

The playground and gymnastic exercises are inseparable from a well-conducted juvenile school. The playground is well described by Mr. Stow as the uncovered school, where the master has the opportunity of training the children in correct habits, and thus fostering in their development the principles with which he is careful they should become acquainted in the school. The playground of the school should therefore stand in the strongest contrast with the playground of the street or lane. The moral atmosphere of the school playground should be so purified by the careful exclusion of all vicious in-

fluences, that in the moment of the most unrestrained mirth there should be an unseen, but effectual screen from the contagion of bad example ; and the errors which occur should be made the means of deterring the children from their repetition.—DR. KAY : *Report on the Training of Pauper Children*, 1841.

CONCLUSION.

To make all sure, here is your course :—Wrestle with God by your fervent prayers, and wrestle with Him too by your faithful endeavours ; and He will not for His goodness' sake, and for His promise' sake He cannot, dismiss you without a blessing. But omit either, and the other is lost labour. Prayer without study is presumption, and study without prayer atheism ; the one bootless, the other fruitless. You take your books in vain into your hand, if you turn them over, and never look higher ; and you take God's Name within your lips in vain, if you cry *Da Domine*, and never stir farther. The ship is then like to be steered with best certainty and success, when there is *oculus ad cælum, manus ad clavum* ; when the pilot is careful of both, to have his eye upon the compass, and his hand at the stern.—BISHOP SANDERSON.

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